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<tbody>
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<td>Francesco Montorsi, Italy</td>
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</table>

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INTRODUCTION & OBJECTIVES: To assess the factors that effect the pain perception during prostate biopsy under local anaesthesia.

MATERIAL & METHODS: In our survey, male patients underwent prostate biopsy in urology department were determined for pain perception under local anaesthesia between June and December 2013. The patients whose PSA level high or digital rectal examination abnormal were included. All patients began to use quinolone group antibiotic for profilaksy. They use enema at the morning of biopsy. Biopsies were taken at left lateral decubit position. We apply 5% lidocain cream to rectum for local anaesthesia. Periprostatic enjection were done with 4 cc lidocain. We took biopsies with transrectal ultrasonography. We listened to classical music one group of patients and didn’t one group with randominasition. Patient’s age, count of biopsy, duration of biopsy, prostate size, pain during the rectal probe insertion, pain during periprostatic enjection, pain during biopsies taken according to visuel analoque scale were recorded.

RESULTS: 51 patients underwent prostate biopsy from June 2013 to December 2013. Mean age was 63.5. Mean PSA level was PSA 12.9 ng/dl. Mean prostate volume was 56.4 cc. Mean biopsy core count was 13.1, mean duration of biopsy was 8.1 minutes. There was no difference between duration. Mean pain score during probe insertion was 0.88, during periprostatic enjection 0.84, during biopsies taken was 0.92 and they were tolerable. None of the patients wanted the operation end due to pain. There was no statistical difference between the groups with music and without music for probe pain, enjection pain and biopsy pain (Table1). When we divided the patients into two groups as above 65 year and under 65 year, there was no difference between of them for pain scores score(Table 2). We couldn’t find any difference between the initial biopsy and multiple biopsy groups for pain perception(Table3). Pain scores wasn’t different between the patients with rectal examination abnormality and normal rectal examination(Table4). When we compare the patients for prostate size. Patients with small prostate size felt more pain. This comparison was also statistically significant (p=0.007)(Table5). There was no complication like infection and rectal bleeding that needed intervention after the operation. Only one patient had hypotensive attack. He recovered with serum(0.9% Nacl) support.

Table 1

<table>
<thead>
<tr>
<th>Pain</th>
<th>Music</th>
<th>N</th>
<th>Mean</th>
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<tr>
<td></td>
<td>Music(-)</td>
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<td>9200</td>
<td></td>
</tr>
<tr>
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<td>0.244</td>
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<tr>
<td></td>
<td>Music(-)</td>
<td>25</td>
<td>9600</td>
<td></td>
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<tr>
<td></td>
<td>Music(-)</td>
<td>25</td>
<td>10400</td>
<td></td>
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CONCLUSIONS: Prostate biopsy with transrectal ultrasonography is a tolerable procedure under local anaesthesia. In our survey prostate size was the main factor that effects pain perception. Listening classical music for reducing stress factors didn't effect the pain scores.

Eur Urol Suppl 2014; 13(7) e1407
INTRODUCTION & OBJECTIVES: After first laparoscopic prostatectomy (Le RPWE) in 1992 by Schussler and after Gaston & Guillonen 1998 confirm this method most frequently late complications are anastomate and urethral stricture. Objective; through the last decade with the procreation of technology, ( LeRPWE) is most frequently in urology. The Aim of this study is to asses and compare the results of the two, surgical approaches in urethra- urinary anastomate with single or continued suture.

MATERIAL & METHODS: Patients end Methods: A retrospective chart review of PCa patients diagnosed & treated in Varna (BG) during 2011-2012 a (total of 21 patients) who underwent (Le RPWE). Comparisons were made on the base of late anastomate stricture, between two groups of patients with single (18 patients) vs. (3 patients) with continued suture.

RESULTS: There was no difference in the preoperative complication rate between the two groups. Differences found in postoperative complication rate. No complications in group 1 (18 patients) v.s complications in all 3 patients in group 2 (late stricture at after 6 months).

CONCLUSIONS: The surgical strategy is improving the quality of life. Choosing which suture single or continued method to perform depends individual cases, but to avoid late stricturis importante to apply role made single.

Key words Le RPWE; Prostatectomy;

Eur Urol Suppl 2014; 13(7) e1408
S003: Discussion of the extended biopsy results of our department, Gata Haydarpasa teaching hospital

Soydan H., Yesildal C., Ates F., Yilmaz O., Malkoc E., Karademir K.

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INTRODUCTION & OBJECTIVES: Purpose:
In this study, we evaluate if there is any clinical characteristic difference of the patients, between the positive and negative prostate biopsy results.

MATERIAL & METHODS: A retrospective analysis performed to 925 patients who underwent prostate biopsies at our center. Transrectal ultrasound (TRUS)-guided 12-core prostate needle biopsy scheme has performed. Patients divided in two groups: those are A- Malign: biopsy resulted tumor positive and atypical small acinar proliferation (ASAP) B- Benign: biopsy resulted tumor negative. We examined if there is any relation and difference between the patient groups; in age, clinical stage (cT), prostate volume. All the patients in this study were from Turkey.

Statistical analysis:
Data analysis was performed by using SPSS for Windows, version 16.0. For independent variables t test used. p values less than 0.05 was considered statistically significant.

RESULTS:
Between 2006-2011, 925 patients underwent prostate biopsy in our clinic. 902 patients had complete data:
- Mean age was 65.83±8.51 (range between 30 and 92, mean 66,)
- Mean PSA values were 14.82±56.24 ng/ml (mean 6.19 ng/ml, range between 0.2 ng/ml and 902 ng/ml),
- Prostate volume was 57.26±32.17 cc (mean 50 cc, range between 14 and 250cc).
- Clinical stage: T1c: 535 patients, T2a: 259 patients, T2b: 65 patients, T2c: 41 patients and T3: 3 patients 757 patients had single biopsy.

Patient age, clinical stage, serum PSA and prostate volume were statistically different in each group Table 1.

<table>
<thead>
<tr>
<th>Pathology</th>
<th>Number</th>
<th>Mean</th>
<th>Standart deviation</th>
<th>p</th>
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<tbody>
<tr>
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<td>Tumor</td>
<td>329</td>
<td>69,167</td>
<td>8,605</td>
</tr>
<tr>
<td></td>
<td>Benign</td>
<td>428</td>
<td>64,259</td>
<td>7,973</td>
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<tr>
<td>Stage</td>
<td>Tumor</td>
<td>329</td>
<td>13,024</td>
<td>10,166</td>
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<tr>
<td></td>
<td>Benign</td>
<td>428</td>
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<td>PSA</td>
<td>Tumor</td>
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<td>27,679</td>
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<tr>
<td></td>
<td>Benign</td>
<td>423</td>
<td>7,062</td>
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<tr>
<td>Prostate volume</td>
<td>Tumor</td>
<td>317</td>
<td>51,329</td>
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<tr>
<td></td>
<td>Benign</td>
<td>420</td>
<td>59,270</td>
<td>31,088</td>
</tr>
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</table>

CONCLUSIONS:
Patients underwent biopsy due to the suspicion of prostate cancer who reported with benign biopsy, are mostly younger and seems to have smaller clinical stage, lower serum PSA values and larger prostate size.

Eur Urol Suppl 2014; 13(7) e1409
S004: Re-biopsy decision in patients who were free of tumor in the first prostate biopsy

Soydan H., Yesildal C., Ates F., Yilmaz O., Malkoc E., Senkul T., Karademir K.

Gata Haydarpasa Teaching Hospital, Dept. of Urology, Istanbul, Turkey

INTRODUCTION & OBJECTIVES: Revealing the re-biopsy reasons, in patients who were free of tumor in the first prostate biopsy.

MATERIAL & METHODS: Our Clinic’s prostate biopsy database was retrospectively analyzed. Transrectal ultrasound guided 12-core prostate needle biopsy has performed. Patients who were free of tumor in the first prostate biopsy divided in two groups: those who A- had only single biopsy B- had more than one biopsy. Any relation and difference between the patient groups; in age, clinical stage (cT), prostate volume is examined.

Statistical analysis: Data analysis was performed using SPSS. For independent variables t test was used and p< 0.05 was considered statistically significant.

RESULTS: Between 2006-2011, 925 patients underwent prostate biopsy in our clinic. 902 patients had complete data:
- Mean age: 65, 83±8.51 (range between 30 and 92, mean 66)
- Mean PSA values: 14.82 ±56.24 ng/ml (mean 6.19ng/ml, range between 0.2ng/ml and 902ng/ml)
- Prostate volume: 57.26±32.17cc (mean 50cc, range between 14 and 250cc)
- Clinical stage: T1c: 535 patients, T2a: 259 patients, T2b: 65 patients, T2c: 41 patients and T3: 3 patients 757 patients had single biopsy.
- Groups: A- Single biopsy: 428 patients
  B- More than one biopsy: 145 patients.

After the initial biopsy 543 patients were tumor free. They were re-evaluated; 145 of those patients had underwent more than one biopsy. 118 patients underwent 2 biopsies while 21 underwent 3 biopsies and 6 underwent 4 biopsies. Patient age, clinical stage and serum PSA values were analysed in each group. Re-Biopsy interventions were much more in patients who had higher PSA values.

Table 1.

<table>
<thead>
<tr>
<th></th>
<th>Biopsy#</th>
<th>Number</th>
<th>Mean</th>
<th>Standart deviation</th>
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<td></td>
<td>&gt;1</td>
<td>115</td>
<td>62.96</td>
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<tr>
<td>PSA</td>
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<tr>
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<td>&gt;1</td>
<td>127</td>
<td>9.34</td>
<td>13.24</td>
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</tr>
<tr>
<td>Prostate volume</td>
<td>1</td>
<td>420</td>
<td>59.27</td>
<td>31.08</td>
<td>0.105</td>
</tr>
<tr>
<td></td>
<td>&gt;1</td>
<td>128</td>
<td>64.51</td>
<td>34.72</td>
<td></td>
</tr>
</tbody>
</table>
CONCLUSIONS: Age, stage and prostate volume are similar in patient groups who underwent re-biopsy and single biopsy, while PSA values seems to be higher in patient group who underwent re-biopsy.

Eur Urol Suppl 2014; 13(7) e1410
S005: Prostate cancers detected after multiple biopsies are generally in low-risk group

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Gata Haydarpasa Teaching Hospital, Dept. of Urology, Istanbul, Turkey

INTRODUCTION & OBJECTIVES: Investigate the clinical characteristic differences between the patients with prostate cancer detected in the initial biopsy and detected after multiple biopsies.

MATERIAL & METHODS: We analyzed our clinic's prostate biopsy database retrospectively. Transrectal ultrasound guided 12-core prostate needle biopsy has performed. Patients who had tumor in the prostate biopsy divided in two groups: those are A- detected in the initial biopsy B- detected after multiple biopsies. We examined if there is any relation and difference between the patient groups; in age, clinical stage (cT), prostate volume. All the patients in this study were from Turkey.

Statistical analysis:
Data analysis was performed by SPSS, for independent variables t test was used. p < 0.05 was considered statistically significant.

RESULTS: Between 2006-2011, of 925 patients underwent prostate biopsy, 902 had complete data:
- Mean age: 65.8±8.51 (range between 30 and 92, mean: 6)
- Mean PSA values were 14.82±56.24 ng/ml (mean: 6.19ng/ml, range between 0.2ng/ml and 902ng/ml)
- Prostate volume: 57.26±32.17cc (mean 50cc, range between 14cc and 250cc).
- Clinical stage: T1c: 535 patients, T2a: 259 patients, T2b: 65 patients, T2c: 41 patients and T3: 3 patients 757 patients had single biopsy.
- Groups: A- CaP detected in the initial biopsy: 326 patients B- CaP detected by multiple biopsies: 145 patients.

Of in 326 patients detected with CaP after the initial biopsy, 145 had underwent more than one biopsy. (118 had 2 biopsies, 21 had 3 biopsies and 6 had 4 biopsies.) Among these, CaP was detected in 23 patients.

Patient age, clinical stage and serum PSA were analysed in each group. Although, people with multiple biopsies group, the serum PSA levels are detected lower than the initial biopsy group (p = 0.019); age, stage and prostate volume were similar. Clinical stage of the patients mostly detected with prostate cancer in the initial biopsy were cT2a, while prostate cancer detected in multiple biopsies were cT1c.

CONCLUSIONS: PSA values are lower and clinical stages are mostly cT1c in patients whose prostate cancer were detected after multiple biopsies.

Eur Urol Suppl 2014; 13(7) e1411
S006: ComBat in Albania for 4 years

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INTRODUCTION & OBJECTIVES: 984 patients diagnosed with Benign Prostatic Hyperplasia (BPH) in different Albanian medical structures were separated randomly in two groups (respectively of 402 and 582 patients) and were treated for a two-year period with two different therapeutic schemas. Aim of the study was to evaluate any probable advantage of combined therapy of Dutasteride with Tamsulosin, toward Tamsulosin alone.

MATERIALS & METHODS: Patients aged from 50 to 81 years old. The maximum value of prostate-specific antigen (PSA) acceptable for inclusion in the study at the beginning of the treatment and in semestral follow-ups was 12 ng/ml; higher levels were followed with the patient exclusion from the study. A minimum prostate volume in transrectal echography at the moment of recruitment was > 30 cm³.

Patients were divided randomly in two almost equal groups (402 vs. 582) and treated for a four-year period (beginning of 2009; end of 2013) with two different schemas. The first group received Dutasteride + Tamsulosin; the second group Tamsulosin in monotherapy. A record of subjective symptomatology was registered monthly; PSA values and transrectal echography were monitored initially and every six months from the initiation of the therapy.

RESULTS: 71% of the patients treated with Dutasteride + Tamsulosin showed a lesser degree of dysuria within the first semester of treatment (Dutasteride 0.5 mg + Tamsulosin 0.4 mg); the patients in monotherapy with Tamsulosin continued largely to experience dysuric symptoms (only 32% referred improvement). At the end of the first year of treatment BPH patients treated with the combination modality referred a mean of 1.8 nocturnal micturitions (minimum 1; maximum 4); the patients treated with Tamsulosin referred a mean of 3.1 nocturnal micturitions (minimum 1, maximum 6).

Nevertheless, the prostatic volume did not differed significantly in the transrectal echography in both groups even after completion of the treatment. Thus, the mean prostate volume of the first group treated with Dutasteride + Tamsulosin was 50.2 ± 20.3 cm³ at the beginning of the treatment; the figure was 50.2 ± 20.3 cm³ at the group who entered monotherapy. After four years of treatment, the change in total prostate volume was 10.3% for the combination therapy, and -3.2% for Tamsulosin in monotherapy (p>0.05).

CONCLUSIONS: The combination therapy (Dutasteride + Tamsulosin) showed better efficacy toward improving the symptomatology of the BPH when compared with Tamsulosin in monotherapy. Patients referred fewer subjective complaints (dysuria, nocturnal micturitions); nevertheless the total prostate volume did not differed significantly in both groups after four years of treatment.

Eur Urol Suppl 2014; 13(7) e1412
S007: Investigation of TMPRSS2/ERG gene fusion in prostate cancer and comparison with prognostic parameters

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INTRODUCTION & OBJECTIVES: To assess the fusion between TMPRSS2 and ERG genes with FISH and immunohistochemical methods. Also to find frequency of recombinant fusion gene in Turkish population and to determine relationship with clinicopathologic parameters.

MATERIAL & METHODS: In our survey we determined the tissue samples from paraffin blocks in 4 mm diameter of the patients who had radical retropubic prostatectomy between 2000-2012. Tumor tissue blocks prepared with 5 mm thick sections and stained with FISH and immunohistochemistry methods for the presence of the fusion was performed. We reviewed the patients’ files and recorded age, Gleason score, tumor volume, initial Gleason score, prostate volume. The relationship between the frequency of gene fusions with these parameters were examined. TMPRSS2/ERG data were categorized as positive and negative terms. Patient age, prostate volume, tumor volume continuous variables; Gleason score, initial Gleason score, pathological stage and perineural invasion is positive in terms of data was evaluated as a categorical variable. SPSS 16.0 (SPSS Inc. Chicago Illinois USA) was used for statistical determination. Descriptive statistics were defined as the mean and standard deviation values. TMPRSS2/ERG positivity and negativity of each variable relationship with the independent variables were analyzed by t-test. TMPRSS2/ERG to be associated with positivity which parameters were analyzed by logistic regression analysis.

RESULTS: Between the years 2000-2012 a total of 99 patients’ paraffin blocks were analyzed. The mean age of patients was 62.02 ± 5.93. Average prostate volume was 50.02 ± 20.67. The average tumor volume was 3.19 ± 4.16. TMPRSS2-ERG gene fusion in 46 patients were positive (46.5%). We showed that none of the parameters (age, prostate volume, tumor volume, Gleason score, pathological stage and perineural invasion) cannot be used to predict positiveness of TMPRSS2/ERG fusion by logistic regression analysis (Table 1). Arguments with the t test when evaluated separately also did not occur in any significant difference was observed (respectively p = 0.815 0.135 0.622 0.309 0.832 0.247). These findings show that TMPRSS2/ERG gene fusion positivity doesn’t associated with biological behavior of the tumor. TMPRSS2/ERG overall positivity rate was found 46.5% in our series of 99 prostate cancer patients who reflect Turkish society.

<table>
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<th>Variable</th>
<th>P</th>
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<tr>
<td>Gleason</td>
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<tr>
<td>Tumor volume</td>
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</tr>
<tr>
<td>Initial Gleason Score</td>
<td>0.3</td>
</tr>
<tr>
<td>PNI</td>
<td>0.88</td>
</tr>
<tr>
<td>Prostate volume</td>
<td>0.09</td>
</tr>
</tbody>
</table>
CONCLUSIONS: The presence of the fusion gene TMPRSS2-ERG doesn’t effect the clinicopathological variables of prostate cancer patients. Frequency of TMPRSS2/ERG gene fusion in the Turkish population was found to be 46.5% compatible with current literature.

Eur Urol Suppl 2014; 13(7) e1413
INTRODUCTION & OBJECTIVES: Cancer of the prostate risk assessment (CAPRA) score has been defined to predict prostate cancer recurrence based on the pre-clinical data, then pathological data has also been incorporated. Thus CAPRA post-Surgical (CAPRA-S) score has been developed based on 6 criteria (pathological Gleason score, prostate specific antigen (PSA), positive surgical margins, seminal vesicle invasion, extracapsular spread and regional lymph node involvement) for the prediction of post-surgical recurrences. In the present study, biochemical recurrence-free survival (BRFS) after open radical retropubic prostatectomy (RRP) was evaluated by CAPRA-S scoring system.

MATERIAL & METHODS: CAPRA-S scores (0-12) of our 240 RRP's performed between January 2000-May 2011 were calculated. Patients were distributed into risk groups according to CAPRA-S scores: 5 as high (n=34) risk. BRFS rates of the 3 groups were evaluated.

RESULTS:

Mean levels of the patients were 62.7 ± 6.2 years for age, 10.9 ± 6.9 ng/ml for PSA and 46.7 ± 23.5 ml for prostate volume. Biochemical recurrence was detected in 41 patients (17.1%) at follow-up. Biochemical recurrence rates were 5.4% (n=8), 22.0% (n=13) and 58.8% (n=20) for low, medium and high risk groups, respectively and the difference was significant (P = 0.0001). BRFS rates were 80.9%, 79.5% and 78.3% for 3, 5 and 10 years, respectively. Mean BRFS time was 98.3 months (95% CI: 92.3-104.2). BRFS rate of low risk group was significantly higher than that of other groups (P < 0.001, log rank test, Kaplan Meier curve) (Figure).

CONCLUSIONS: Our findings showed that CAPRA-S score provides useful information on the evaluation of BRFS after RRP.

Eur Urol Suppl 2014; 13(7) e1414
**S010: Comparison of cores with and without cancer in patients with prostate cancer: A different perspective to the length of core**

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**INTRODUCTION & OBJECTIVES:** Increasing core length could provide more obtained tissue sample. So in this study, we aimed to evaluate patients with prostate cancer and detected the effect of core length in determining cancer and besides if a relationship was occurred between core length and Gleason score.

**MATERIAL & METHODS:** In our clinic, we evaluated retrospectively 512 patients who underwent 12 cores Transrectal ultrasound (TRUS) guided prostate biopsy between 2008 and 2012. In order to create homogenization, patients with a PSA level higher than 20 ng/ml, with the history of a previous biopsy, with suspicious digital rectal examination findings and evidence of urinary tract infection were excluded from the study. Cores were divided into two groups with cancer (Group 1) and without cancer (Group 2). Also Gleason scores as poorly differentiated (score 7, 8-10) and moderately differentiated (score 5,6) were compared with each other in terms of the core length. Core lengths of the groups were compared with student-t test. p value of <0.05 was considered as statistically significant.

**RESULTS:** Of the 512 patients, 76 (15%) have been diagnosed with prostate cancer. Patient characteristics are shown in Table 1. In total, 912 cores of prostate biopsy samples were evaluated from the 76 patients. As 92 cores including insufficient tissue, we could not able to evaluate them. 820 cores were divided into two groups. Cancer was detected in 302 cores while 518 cores as benign nature. Average core length in group 1 was 11.9 ± 4.4 mm and 11.08 ± 5.1 mm in group 2 (p=0.015) (Table 2). Poorly differentiated and moderately differentiated cancers’ core lengths were similar. 12.3 ± 4.2 mm and 11.7 ± 4.5 mm respectively (p=0.25).

**CONCLUSIONS:** Our study demonstrated that increasing prostate cancer detection rate could be related with core length in TRUS guided prostate biopsies.

Eur Urol Suppl 2014; 13(7) e1415
INTRODUCTION & OBJECTIVES: To determine whether testicular cryoablation causes histopathological orchiectomy, and its effect on total testosterone (t-testosterone) levels in rats.

MATERIAL & METHODS: A total of 12 Wistar albino male rats were used in this study. The animals were divided into two groups, as cryoablation (9 rats) and control (3 rats) groups. Only scrotal exploration was performed in the control group. Bilateral cryoablation was performed in the cryoablation group. T-testosterone was studied in both groups before scrotal exploration. Bilateral orchiectomy was performed in both groups 10 days after the cryoablation procedure. T-testosterone was measured immediately before orchiectomy. Removed testes were analyzed for presence of necrosis, inflammation, hyperemia, and edema. Mann Whitney U test was used for intergroup comparisons of continuous variables. p<0.05 was regarded as statistically significant.

RESULTS: Baseline t-testosterone levels were 1.31 (0.78-2.45) ng/ml and 0.98 (0.91-2.05) ng/ml in the cryoablation and the control groups, respectively (p=0.92). T-testosterone levels were 0.23 (0.07-1.12) ng/ml and 2.87 (0.63-3.06) ng/ml in the cryoablation and the control groups, respectively, in the blood samples obtained at the time of orchiectomy (10 days after cryoablation) (p=0.03) (Table 1). Histopathological examination of rat testes revealed varying degrees of paratesticular inflammation and necrosis in 13 of 18 testes in the cryoablation group. None of 6 testes showed necrosis in the control group (Table 2).

Table 1. Comparison of total testosterone (t-testosterone) levels in cryoablation and the control groups.

<table>
<thead>
<tr>
<th></th>
<th>Cryoablation group (9 rats)</th>
<th>Control group (3 rats)</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>t-testosterone before cryoablation (ng/ml)</td>
<td>1.31 (0.78-2.45)</td>
<td>0.98 (0.91-2.05)</td>
<td>0.92</td>
</tr>
<tr>
<td>t-testosterone at the time of orchiectomy (ng/ml)</td>
<td>0.23 (0.07-1.12)</td>
<td>2.87 (0.63-3.06)</td>
<td>0.03*</td>
</tr>
<tr>
<td>t-testosterone 72 hours after orchiectomy (ng/ml)</td>
<td>0.05 (0.04-0.43)</td>
<td>0.01 (0.01-0.01)</td>
<td>0.38</td>
</tr>
</tbody>
</table>
### Table 2. Histopathological findings

<table>
<thead>
<tr>
<th></th>
<th>Active inflammation</th>
<th>Hyperemia</th>
<th>Edema</th>
<th>Paratesticular inflammation and necrosis</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Group</strong></td>
<td>0 +1 +2 +3</td>
<td>0 +1 +2 +3</td>
<td>0 +1 +2 +3</td>
<td>0 +1 +2 +3</td>
</tr>
<tr>
<td><strong>Cryoablation (n=18)</strong></td>
<td>0 4 2 12</td>
<td>0 5 8 5</td>
<td>0 4 1 3</td>
<td>5 1 1 11</td>
</tr>
<tr>
<td><strong>Control (n=6)</strong></td>
<td>5 1 0 0</td>
<td>3 3 0 0</td>
<td>3 2 1 0</td>
<td>6 0 0 0</td>
</tr>
<tr>
<td><strong>p value</strong></td>
<td>0.0001</td>
<td>0.001</td>
<td>0.003</td>
<td>0.004</td>
</tr>
</tbody>
</table>

**CONCLUSIONS:** Our study showed that histopathological orchiectomy could be obtained in the testis by cryoablation. In our opinion, cryoablation can be an alternative to medical and surgical (orchiectomy) castration.

Eur Urol Suppl 2014; 13(7) e1416
S012: Association between the change in Gleason score after radical prostatectomy and oncological results

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INTRODUCTION & OBJECTIVES: In the present study, it was aimed to evaluate the association between the post-operative change in biopsy Gleason score (GS) and oncological results including unfavorable pathological characteristics and biochemical recurrence free survival in patients underwent open radical retropubic prostatectomy (RRP) due to localized prostate cancer.

MATERIAL & METHODS: The study enrolled 305 patients who underwent RRP. Patients having a follow-up time of less than 12 months (n = 13) and a biopsy core number ≤ 6 (n = 15) and cT1a/b (n = 40), pT0 (n = 2) patients were excluded from the study.

RESULTS: Mean levels of 235 patients included in the study were 62.9 ± 5.9 years for age, 10.9 ± 6.8 ng/mL for PSA and 46.1 ± 21.6 mL for prostate volume. Of the patients, 29 (12.3%) had decreased, 117 (49.8%) not changed, 89 (37.9%) increased surgical specimen GS compared with biopsy. Of the patients, 71 (30.2%) had extracapsular extension (ECE), 47 (20.0%) positive surgical margins (PSM), 35 (14.9%) seminal vesicle invasion (SVI) and 12 (5.1%) lymph node involvement (LNI) at pathology report of their surgical specimens. GS increased in 46.5%, 59.6%, 71.4%, and 83.3% of patients with ECE, PSM, SVI, and LNI, respectively. Biochemical recurrence was detected in 45 of 209 patients (21.5%) at a mean follow-up of 69.6 ± 35.0 months. Biochemical recurrence free survival rate of patients with increased GS was significantly lower than that of patients whose GS decreased and not changed post-operatively (P = 0.024 and 0.006, respectively, log rank test, Kaplan Meier method) (Figure). However, there was no difference between patients with decreased and not-changed post-operative GS regarding biochemical recurrence free survival rate (P = 0.37).

CONCLUSIONS: Our results showed that the increase in GS after RRP is associated with adverse pathological features and the decrease in biochemical recurrence-free survival.

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S013: Evaluation of PSA before and after prostate biopsy. Could this change define the existence of prostate cancer? A prospective clinical trial


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INTRODUCTION & OBJECTIVES: Prostate cancer is the most common solid neoplasm in Europe and serum prostatic specific antigen (PSA) and digital rectal examination (DRE) are widely used as screening tests. According to these tests, when prostate cancer is clinically suspected, prostate biopsy is recommended to confirm or rule out the presence of carcinoma. Nevertheless, a significant number of negative biopsies are found with a false negative rate 23%. Therefore, it is necessary to find a new helpful predictive marker of prostate cancer in order to predict which of our patients with negative cancer results are best candidates for a repeat biopsy. The objective of this study is to estimate the PSA change ratio before and after transrectal ultrasound – guided (TRUS) prostate biopsy and evaluate if this could constitute a new one such marker.

MATERIAL & METHODS: A prospective, uncontrolled single group study was conducted in a tertiary center in Greece. A total of 163 patients who underwent first or repeat prostate biopsy between August 2012 and June 2014 were included in this trial. PSA was measured one day before prostate biopsy and one hour after the last biopsy core. The PSA change ratio was defined as the ratio of post-biopsy total serum PSA to pre-biopsy serum PSA. Based on the result of biopsy, patients were divided in two groups. Group A was comprised of patients with benign prostate hyperplasia while group B was comprised of patients with prostate cancer. Between the two groups the PSA change ratio was compared with the use of Student’s independent t-test. All analyses were performed with SPSS ver. 20.0 (SPSS Inc., Chicago, IL, USA). A p-value

RESULTS: The mean patient age was 67.46 ± 8.15 years while the baseline PSA was 12.49. For the majority of those patients this was the first biopsy (68.1%). 77 men had a benign histology (group A), 72 men were diagnosed with prostate cancer (group B) according to results of biopsy while there were 14 patients with either high grade PIN (prostatic intraepithelial neoplasia) or ASAP (atypical small acinar proliferation) that they were not included in the analysis. There was no difference in the number of biopsy cores between the two groups (p=0.681). Mean PSA change ratio in group A was 6.18 ± 4.41 and 3.65 ± 3.66 in group B. Between two groups, this change was statistically significant (p=0.005). We identified 15 patients with PSA change ratio ≤ 3.65 (mean PSA change ratio value of group B) and a negative biopsy which, according to our results, would be candidates for a more close follow up.

CONCLUSIONS: According to our results, if the PSA change ratio is less than 3.65, repeat biopsy should be easier considered to confirm the diagnosis. On the other hand, a high PSA change ratio could reduce unnecessary prostate biopsies. PSA change ratio seems to be a predictive factor for prostate cancer. However, a larger number of patients and the expected results of repeat biopsies are necessary to identify strict cut-off values of the PSA change ratio.

Eur Urol Suppl 2014; 13(7) e1418
INTRODUCTION & OBJECTIVES: Digital rectal examination (DRE) of the prostate gland is an important diagnostic tool in the context of both benign and malignant diseases. Although PSA is a common and important test for the diagnosis of prostate cancer, DRE findings are also still valuable for determination of especially clinically significant tumors. Regardless of PSA, presence of these findings constitutes indication for biopsy. We aimed to investigate prediction value of DRE findings such as benign, asymmetry, nodule for cancer detection in 1495 patients underwent TRUS guided prostate biopsy in our institute.

MATERIAL & METHODS: The patients underwent prostate biopsy due to high levels of PSA and positive DRE findings in our clinic between 2006-2014 were evaluated retrospectively. Age, PSA level, prostate volume, digital rectal examination findings were recorded. First biopsies were taken standard 12 core. Following biopsies were taken 18 or 24 core. Seminal vesicle biopsies were also taken from patients whose PSA levels were higher than 10 ng/ml. 18 core biopsy were taken instead of 12 core biopsy, from the patients whose prostate volume is more than 60 cc. Biopsies were numbered according to their location. Correlation between pathological results and examination findings were analyzed.

RESULTS: Totally 1495 patients undergone prostate biopsy. Mean age of patients was 66.72, mean prostatic volume on TRUS was 55.98 cc and mean PSA level was 18.61ng/ml. Overall cancer detection rate was 38.66% (575/1495). 819 of 1495 (54.78%) patients had benign DRE finding, 484 (32.37%) patients had suspicious DRE findings such as nodule or induration and 192 (12.84%) patients had asymmetric lobe in DRE. 237 (28.93%) of 819 patients with benign DRE had malignity according to biopsy results. 67 of 192 (34.89%) patients with asymmetric lobe had cancer somewhere in whole prostate. Remaining 125 (65.10%) did not have malignity. Asymmetric lobe included malignity in 46 of 67 (68.65%) patients. Remaining 21 (31.34%) patients had malignity in opposite side of asymmetry. 271 of 484 (55.99%) patients with nodule had malignity in their prostate. Nodule and malignity were together in the same lobe in 232 of 271 patients(85.60%). 213(44%) patients with nodule had benign results. Malignity detection rate of benign, asymmetry and nodule findings in DRE were 28.93%, 34.89% and 55.99% respectively. Sensitivity and specificity for cancer detection of benign, asymmetry and nodule in DRE were 41.21% - 36.74%, 11.65% - 86.41% and 47.13% - 76.84% respectively.

CONCLUSIONS: Tumor detection rate of asymmetry is lower than nodularity and stiffness. Briefly nodule is the most suspicious finding for tumor detection in DRE.

Eur Urol Suppl 2014; 13(7) e1419
S016: Does length of prostate biopsy cores impact on diagnosis of prostate cancer?

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INTRODUCTION & OBJECTIVES: To evaluate whether core length is a significant biopsy parameter in the detection of cancer.

MATERIAL & METHODS: We retrospectively analyzed pathology specimens of 188 patients diagnosed with prostate cancer who have undergone initial transrectal ultrasound guided prostate biopsy. The biopsy specimens of prostate cancer patients were divided into 3 groups according to core length (group 1; total core length < 10 mm, group 2; total core length 10 mm-19 mm, and group 3; total core length > 20 mm), and data was compared. Single core analysis was done to calculate a certain cut off value for core length with optimal sensitivity and specificity in cancer detection.

RESULTS: Mean age, PSA and total length of cores were 65.08±7.41 years, 9.82±6.34 ng/mL and 11.2±02 mm, respectively. Assessment of biopsy core lengths showed that cores with cancer (n =993, average length 12.5 mm) were significantly longer than benign cores (n = 1185, average length = 11.3 mm) (p < 0.001). Core length analysis yielded 12 mm cores have an optimal sensitivity (41.9%) and specificity (62%) for detection of cancer (odds ratio: 1.08).

Table 1. Demographic characteristics of groups

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Core length (Average±SD) (mm)</th>
<th>Cancer (-) cores (n,% )</th>
<th>Cancer (+) cores (n,% )</th>
<th>P value*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group 1</td>
<td>610</td>
<td>5.9±2.1</td>
<td>448 (73.4%)</td>
<td>162 (26.6%)</td>
<td>p&gt;0.05</td>
</tr>
<tr>
<td>Group 2</td>
<td>1422</td>
<td>12.6±2.4</td>
<td>686 (48.2%)</td>
<td>736 (51.8%)</td>
<td>p&lt;0.05</td>
</tr>
<tr>
<td>Group 3</td>
<td>146</td>
<td>20.9±1.5</td>
<td>51 (34.9%)</td>
<td>95 (65.1%)</td>
<td>p&lt;0.05</td>
</tr>
</tbody>
</table>

Mm: milimeter  N: number  *Chi-square test

CONCLUSIONS: Biopsy core length is one of the most important parameter that determines the quality of biopsy and directly affects the rate of cancer detection. An average sample length of 12 mm is ideal for the lower limit in TRUS guided biopsies and the average length of biopsy cores that are shorter than 12 mm need to be repeated.

Eur Urol Suppl 2014; 13(7) e1420
S017: Our experience of implementing gil-vernet method about urine incontination after radical retropubic prostatectomy

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INTRODUCTION & OBJECTIVES: The short brief of the problems connected with the urine incontination after radical prostatectomy, shows that these problems are not solved and the examinations are still actual. Aims & Tasks: To implement and investigate a new method for reducing the urine incontination after radical prostatectomy.

MATERIAL & METHODS: From March 2011 to February 2014 we made retropubic prostatectomy in a new way for our practice in 14 patients with local advanced prostate adenocarcinoma /staging T2 N0M0 / and Glisson score to 7. We made retropubic prostatectomy since 1998 as we have used different techniques: Progarde, retrograde, with resection and without resection of the puboprostate ligaments, with saving vessel-nerve shaft. In 1/3 of the cases we had stress incontinantion in different stages although of the operative technique. From 2011 we began to use intraoperative investigation of the urinary bladder continence before making bladder-urethral anastomosis, the same as Gil Vernet’s [Figure 1]. The main part of the manipulation consists of filling the urinary bladder with liquid by Nelon catheter. The orifice of the urinary bladder we create around supported anatomic pincet and we narrow with stitches till there is no flow from the bladder after removing the pincet. There is a flow only by prssing the urinary bladder or putting an instrument inside it. After that we make bladder urethral anastomosis [Figures 2,3].

RESULTS: In 2 cases /14,3%/ we had urine incontinence. But we had obstruction if the level of bladder urethral anastomosis in 4 cases /28,6%/ - it was solved by transurethral resection.

CONCLUSIONS: Manipulating the urinary bladder orifice to hold liquid inside the bladder before making bladder urethral anastomosis prevents incontinence after prostatectomy. Sclerosis of bladder urethral anastomosis is more often observed, but is easier to solve. It is needed more representativeness of the observations

Eur Urol Suppl 2014; 13(7) e1421
Introduction & Objectives: Nowadays PSA doubling time (PSADT) is used in various clinical cases, including for estimating the aggressive phenotype of prostate cancer (PCa). The purpose of the study is to estimate the clinical and prognostic values of the pretreatment PSADT in patients with prostate cancer.

Material & Methods: The pretreatment PSADT and follow-up information was compiled on 1004 men, of which 912 were treated with external beam radiation therapy (EBRT) and 92 patients underwent radical prostatectomy (RP).

In the first group the pretreatment PSADT was compared with the clinical tumor category, Gleason score, PSA level at diagnosis, as well as the age and the education level of the patients. The pretreatment PSADT was also compared with the survival rate of the patients. The patients were divided into groups corresponding to the slow and fast PSADT. Illustrations of the estimates of time to all-cause survival following EBRT were made using Kaplan-Meier cumulative incidences, for men with slow and fast PSADT respectively.

In the second group the incidence of biochemical recurrence and adverse pathologic features after surgery (positive lymph nodes, locally advanced and poorly differentiated tumors) were assessed according to the level of preoperative PSADT.

Results: In the first group the correlation between the PSADT and the degree of tumor progression was discovered. PSADT decreased with the increase of clinical tumor stage, Gleason score and PSA level at diagnosis. The median PSADT depending on the education level and patient’s age were also significantly different. The prognostic significance of PSADT was confirmed: short DT is a predictor of negative outcome, and a prolonged DT implies all-cause survival advantage.

In the second group the correlation between the preoperative PSA kinetics and postoperative pathological findings after radical prostatectomy was discovered. Positive lymph nodes (p = 0.04), locally advanced (p = 0.03) and poorly differentiated tumors (p = 0.046) were significantly more frequent in patients with a PSADT ≤ 20,0 months. The role of the preoperative PSADT as a predictor of relapse-free survival after radical prostatectomy was confirmed. By multivariate analysis preoperative PSADT ≤ 20 months showed a statistically significant increase in the relative risk of biochemical recurrence.

Conclusions: PSADT is a powerful indicator of tumor biology. A short DT is a surrogate for rapid tumor growth and a longer DT implies a more indolent tumor. Moreover, the study has confirmed the prognostic value of PSADT. The statistically and clinically significant associations between the PSADT and all-cause and relapse-free survivals have been described.

Eur Urol Suppl 2014; 13(7) e1422
**S019: The importance of neutrophil/lymphocyte ratio in prediction of psa recurrence after radical prostatectomy**

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¹Türkiye Yüksek İhtisas Hospital, Dept. of Urology, Ankara, Turkey, ²Ankara University School of Medicine, Dept. of Biostatistics, Ankara, Turkey

**INTRODUCTION & OBJECTIVES:** The rate of prostate specific antigen (PSA) recurrence after radical prostatectomy, which is the gold standard treatment of localised prostate cancer, is 30%. The prediction of pre-operative and post-operative recurrence plays an important role in determination of adjuvant treatment strategies. While the most important parameter in recurrence prediction was surgical pathology in the past; today, nomograms created with various parameters are used in prediction of post-operative recurrence.

Previous studies have shown that systemic inflammation have an important role in cancer development. Similarly, a cancer related inflammatory response occurs in oncologic patients and the severity of this response can be measured with certain indicators in blood. One of these indicators is ratio of neutrophil count to lymphocyte count (NLR) in blood. In previous studies, it has been found that increased NLR was associated with poor prognosis and low survival in various cancer types.

There is a limited number of studies on the relationship between NLR and prostate cancer in the literature. The aim of this study is to research the importance of NLR in prediction of PSA recurrence after radical prostatectomy, which has not been reported so far.

**MATERIAL & METHODS:** The data of 175 patients, who were diagnosed with localised prostate cancer and underwent retropubic radical prostatectomy was retrospectively examined. Patients’ pre-operative hemogram parameters of neutrophil count, lymphocyte count and NLR were calculated. The patients whose PSAs were too low to measure after radical prostatectomy in their follow-ups, and then had PSAs of 0.2 ng/mL were considered as patients with PSA recurrence. Patients with recurrence made up Group A and patients without recurrence made up Group B.

**RESULTS:** Among a total of 175 patients, there were 39 patients (22%) with recurrence in Group A and 136 patients (78%) without recurrence in Group B.

In terms of pre-operative prostate biopsy Gleason score and post-operative specimen Gleason score, there was a statistically significant difference between patients who had the same score, patients who had lower scores compared to their biopsy scores (downgrading), patients who had higher scores compared to their biopsy scores (upgrading) and PSA recurrence detection (p<0.001). According to this, PSA recurrence was more common in upgrading group.

In terms of the power of NLR value in distinguishing recurrence, the area under OCC was statistically significant (p<0.001) (Table2). The value of 2.494 for NLR was found to be a cut-off value which can be used in order to distinguish recurrence according to Youden index. According to this, patients with a higher NLR value than 2.494 had higher rates of PSA recurrence with 89.7% sensitivity and 92.6% specificity.

**CONCLUSIONS:** The prediction of post-operative recurrence plays an important role in determination of adjuvant treatment strategies and patient follow-up (5, 6). There are certain parameters used in order to predict recurrence with today’s literature data (5). We think that because NLR is easy to use in clinics and inexpensive, and also has high sensitivity and specificity values, it has the potential to be one of the parameters used in order to predict biochemical recurrence in future.

Eur Urol Suppl 2014; 13(7) e1423
INTRODUCTION & OBJECTIVES: To evaluate the frequency of metabolic syndrome in patients diagnosed with prostate cancer and whether has a relationship with other parameters of prostate cancer.

MATERIAL & METHODS: We retrospectively analyzed serum parameters of 102 patients who were diagnosed with prostate cancer after transrectal ultrasound guided prostate biopsy. Patients were divided into two groups if they had metabolic syndrome or not. We compared serum prostate specific antigen levels, age of the patients, total prostate volumes, and Gleason scores between two groups.

RESULTS: Eighteen of the 102 (17.6%) patients had metabolic syndrome. Mean prostate specific antigen level was significantly lower in the group with metabolic syndrome (p<0.05). There were no difference in mean ages, mean Gleason scores and total prostate volumes between two groups.

<table>
<thead>
<tr>
<th>Metabolic Syndrome</th>
<th>Age</th>
<th>Prostate Specific Antigen</th>
<th>Prostate Volume</th>
<th>Gleason Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Syndrome (+) (%)</td>
<td>67.78±6.32</td>
<td>9.96±4.57</td>
<td>52.05±9.70</td>
<td>6.50±0.98</td>
</tr>
<tr>
<td>Syndrome (-) (%)</td>
<td>67.58±6.50</td>
<td>11.51±8.28</td>
<td>52.10±9.15</td>
<td>6.64±1.07</td>
</tr>
<tr>
<td>p</td>
<td>0.78 P&gt;0.05</td>
<td>0.04 P&lt;0.05</td>
<td>0.89 P&gt;0.05</td>
<td>0.31 P&gt;0.05</td>
</tr>
</tbody>
</table>

CONCLUSIONS: The relationship between metabolic syndrome and prostate cancer is not clear. But a careful prostate specific antigen screening should be done in patients with metabolic syndrome because prostate cancer may be associated with lower prostate specific antigen values in these patients.

Eur Urol Suppl 2014; 13(7) e1424
S022: Outcome of radical prostatectomy in patients older than 70 years: Is surgery still justified in the era of watchful waiting?

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American University of Beirut, Dept. of Urology, Beirut, Lebanon

INTRODUCTION & OBJECTIVES: In the past several years, there has been heightened interest for Active Surveillance (AS) in the management of prostate cancer, especially in older patients with associated co-morbidities spurred by mounting evidence in the literature of indolent nature of the disease. Moreover, some continue to question the value of radical prostatectomy (RP) in elderly patients because of the increased risk of general anesthesia, bleeding, and incontinence. We evaluated the clinicopathological and oncological outcomes in patients > 70 years old treated with RP at our center.

MATERIAL & METHODS: Clinicopathological and follow up data for 35 patients above 70 years old who underwent RP between 1999 and 2012 were analyzed. Attention was directed to known risk factors that affect both biochemical recurrence free survival and clinical progression free survival, which they are: Clinical stage at presentation, PSA level, Extraprostatic extension (EPE), seminal vesicle involvement (SVI), positive surgical margin (PSM) and Gleason score (GS).

RESULTS: Median age of the patients at time of surgery was 71 years (70-75). Mean PSA level was 10.9ng/ml (2.13-38). The clinical stage at presentation was: T1c=12/35 (34.28%); T2:21/35 (60%); T3:2/35 (5.72%). Pathological Gleason score ≥ 8 was identified in 5/35 patients (14.28%); and pathological stage pT3 in 13/35 (37%). Surgical margin involvement occurred in 17/35 (48.5%). 7 patients received adjuvant radiotherapy and hormonal therapy. At a median follow-up of 42 months (2-111) one fourth of the patients had PSA recurrence, 66% of them had SM+ on pathology and one developed overt metastasis.

CONCLUSIONS: Results of the present study show that elderly patients harbor high risk disease more than what was expected; moreover, radical prostatectomy offers good oncological outcome wherein 75% of the patients were disease free at median follow-up of 42 months. The decision to offer RP as the preferred treatment modality for prostate cancer should be based on tumor characteristics and health status and not to be confounded by the age.

Eur Urol Suppl 2014; 13(7) e1425
S023: The value of radical prostatectomy as the initial first step in the management algorithm of pT3b prostate cancer

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INTRODUCTION & OBJECTIVES: Despite widespread application of PSA screening and its ability to detect low stage detection of prostate cancer (PCa), seminal vesicle invasion is still frequently reported and remains poor prognostic feature. We report outcomes after radical prostatectomy for pT3b in a cohort of Middle Eastern men.

MATERIAL & METHODS: The institutional radical prostatectomy (RP) database (1998-2012) of 400 men was reviewed, and we identified 29 with pT3b tumors and had follow up more than 2 months. The Gleason score of the specimen, presence of extra capsular extension, surgical margin status and the use of adjuvant androgen deprivation therapy and radiotherapy were noted. Follow-up data included serial PSA assays and digital rectal examination. The main endpoint was PSA relapse, defined as two successive elevations of PSA>0.2 ng/mL. Kaplan-Meier analysis was used to calculate the biochemical progression-free survival (BPFS).

RESULTS: Three patients with lymph node involvement at time of surgery were excluded from the analysis. Median preoperative PSA was of 12.5 ng/mL. Surgical margins showed cancer involvement in 77% of the cases. Extra prostatic extension was present in 80.7% of the cases. Gleason score was ≥3+4 in 84% of the cases. 20 patients received concomitant adjuvant radiotherapy (at 4 months-10 months post operatively) with hormonal therapy for a total of 3-12 months. All patients had undetectable PSA at time of radiation. After a mean follow-up of 65.2 months (range 6-179), 7 patients (26.9%) had progression. The biochemical 5-year progression-free survival rate was 72.7%. Two patients developed lymph node metastasis. All patients are currently alive.

CONCLUSIONS: Seminal vesicle involvement has been known to be associated with a poor prognosis. Our data demonstrate that primary radical prostatectomy could be the mainstay treatment for locally advanced PCa, and the first step of a multimodal strategy in T3b, followed by adjuvant EBRT with concomitant hormonal therapy.

Eur Urol Suppl 2014; 13(7) e1426
SO25: Comparing of incontinence, quality of life and sexual function in overweight female patients underwent TOT and mini-sling surgery

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INTRODUCTION & OBJECTIVES: To compare transobturator tape (TOT) and mini-sling procedures in terms of their effects on urinary incontinence, the quality of life and sexual function in overweight (BMI ≥25-29.9 kg/m²) female patients using the International Consultation on Incontinence Questionnaire scoring form (ICIQ-SF), Quality of Life of Persons with Urinary Incontinence scoring form (I-QOL) and Female Sexual Function Index scoring form (IFSF).

MATERIAL & METHODS: In this prospective trial, the patients were divided into two groups consecutively; first 20 overweight female patients underwent the TOT (Unitape T®, Promedon, Cordoba, Argentina) procedure and the subsequent 20 consecutive overweight female patients underwent the mini-sling [TVT-secure (Ethicon Inc., Sommerville, USA)] procedure. Age, urinary incontinence period, parity and daily pads usage were recorded. No usage of pads was defined as subjective cure rate postoperatively. Before the operation and 6. month after the surgery, the patients completed the ICIQ-SF, I-QOL and IFSF.

RESULTS: There was no significant difference between the two groups in terms of mean age, duration of incontinence, parity, and BMI (p>0.05) (Table I). ICIQ-SF and I-QOL revealed that the patients in the TOT group showed significantly better improvement (76.20% versus 64.10%, p=0.001, 81.31% versus 69.28%, p=0.001, respectively). In addition, subjective cure rates were found higher in TOT group (75% versus 55%, p=0.190). However, there was no significant difference between the two groups on IFSF scores (TOT group 19.93% vs mini-sling group 18.60%, p=0.820) (Table II).

Table I: Demographic data of the patients and operations.

<table>
<thead>
<tr>
<th></th>
<th>TOT Group</th>
<th>Mini-Sling Group</th>
<th>pvalue</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age (year)</td>
<td>53.25±5.70</td>
<td>52.20±5.81</td>
<td>p=0.565</td>
</tr>
<tr>
<td>BMI (kg/m²)</td>
<td>27.75±1.29</td>
<td>28.40±0.99</td>
<td>p=0.201</td>
</tr>
<tr>
<td>Parity (n)</td>
<td>3.95±1.66</td>
<td>3.85±1.59</td>
<td>p=0.779</td>
</tr>
<tr>
<td>Incontinenceperiod (year)</td>
<td>3.45±0.94</td>
<td>4.10±1.07</td>
<td>p=0.720</td>
</tr>
<tr>
<td>Operation time (minute)</td>
<td>24.25±3.41 (18-28)</td>
<td>16.30±1.65 (14-20)</td>
<td>p=0.0001</td>
</tr>
<tr>
<td>Intraoperative complications</td>
<td>-</td>
<td>Bladder perforation in 1 (5%) patient</td>
<td>p=0.311</td>
</tr>
<tr>
<td>Postoperative complications</td>
<td>‘de novo’ urge incontinence in 1 (5%) patient</td>
<td>‘de novo’ urge incontinence in 1 (5%) patient</td>
<td>p=1</td>
</tr>
</tbody>
</table>

Table II: Post operative improvements of ICIQ-SF, I-QOL and IFSF scores

<table>
<thead>
<tr>
<th></th>
<th>TOT Group</th>
<th>Mini-Sling Group</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improvement on ICIQ-SF scores</td>
<td>76.20%</td>
<td>64.10%</td>
<td>p=0.001</td>
</tr>
<tr>
<td>Improvement on I-QOL scores</td>
<td>81.31%</td>
<td>69.28%</td>
<td>p=0.001</td>
</tr>
<tr>
<td>Improvement on IFSF scores</td>
<td>19.93%</td>
<td>18.60%</td>
<td>p=0.820</td>
</tr>
</tbody>
</table>
CONCLUSIONS: The existing data is showed that incontinence symptoms and the quality of life have higher improvement in overweight female patients who underwent the TOT procedure. It is likely that the TOT procedure may provide stronger urethral support and better contributes to continence in this group of patients.

Eur Urol Suppl 2014; 13(7) e1427
**S026: Obstructive uropathy caused by extraureteral endometriosis**

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**INTRODUCTION & OBJECTIVES:** Ureteral endometriosis is an uncommon and silent cause of renal impairment. It is therefore important to be highly suspicious in order to be able to make an early diagnosis and thus prevent renal failure.

**MATERIAL & METHODS:** We present a case study of a 45 year old female with extraureteral endometriosis with review of literature.

**RESULTS:** A 45 year old lady presented with recurrent left flank and suprapubic pain for 6 months. CT without contrast showed no stones and mild to moderate left hydrenephrosis. The middle third of left ureter was surrounded by periureteral soft tissue suggesting extraureteral endometriosis. Diuretic renal scan (MAG 3) showed obstructed left kidney with impairment of its function (14%). A retrograde study showed narrowing of the ureter at the pelvic brim. Ureteroscopy showed a papillary mass in the lumen of the ureter from which multiple cold cup biopsies were taken. The pathology however was not conclusive. The narrowing of the ureter did not improve after trial of balloon dilatation and left DJ stent insertion. Exploration with ureterolysis and excision of the narrow area of the ureter was performed with end to end ureteric anastomosis. Histopathology confirmed extraureteral endometriosis. Patient was started on hormonal treatment in the form of Gonadotropin-releasing hormone (Gn RH) agonist by gynecologist to inhibit endometrial tissue.

**CONCLUSIONS:** We concluded that ureteral endometriosis should be considered in the differential diagnosis of unexplained ureteric obstruction in women. Early diagnosis is crucial to avoid renal impairment.

Eur Urol Suppl 2014; 13(7) e1428
S027: Risks factors for stress urinary incontinence

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INTRODUCTION & OBJECTIVES: Urinary incontinence has substantial and important impacts on quality of life. Our objective is to determine risk factors for female stress urinary incontinence.

MATERIAL & METHODS: All of the patients were interviewed by (ICIQ-FLUTS) questionaries and done gynecological examination, urine culture and abdominal ultrasound.

RESULTS: The statistical analysis revealed that menopause, constipation, BMI, alcohol consumption, smoking, hypertension, diabetes, family history and parity are associated with UI as risk factors.

CONCLUSIONS: The incidence of SUI is related with multiple factors, especially with obesity, obstetric factor, constipation.

Eur Urol Suppl 2014; 13(7) e1429
S030: The relationship between sexual functions and family functions in women

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INTRODUCTION & OBJECTIVES: Many women experience problems with sexual function at some point in their lives. Female sexual dysfunction can occur at all stages of life, and it may be ongoing or happen only once in a while. The studies indicate that psychological stress plays a role in sexual arousal responses. An acute stressor and chronic daily stress both affect the genital response and an acute stressor also affects subjective sexual arousal. A chronic stressor is an ongoing stressor, such as financial worries, marital distress. Most of the chronic stressors are minor daily problems (daily hassles), but they can also be ongoing major life events. To date, only a few observational studies investigated the relationship between family distress and sexual problems in women. The aim of this study is the investigation of family functions in relation to sexual function in women.

MATERIAL & METHODS: A questionnaire about demographic data, female sexual function and family functions is performed. To evaluate family functions, Mc Master Family Assessment Device (FAD) and to evaluate sexual functions female sexual function index (FSFI) is used. As an indication for sexual functioning, the total of the FSFI score and subscale scores were used in this study. The Family Assessment Device is a 60-item self-report questionnaire assessing family functioning on six ‘dimensions’, Problem-Solving, Communication, Roles, Affective Responsiveness, Affective Involvement and Behavior Control, plus a summary scale, General Functioning. Problem-Solving reflects the family’s ability to resolve problems together, Communication refers to effectiveness, extent, clarity and directness of information exchange, Roles describes the efficacy with which family tasks are allocated and accomplished, Affective Responsiveness is the ability of family members to respond to situations with appropriate emotions, both positive and negative, Affective Involvement reflects the interest and concern that they have for each other and Behavior Control describes the standards and latitudes for behavior. General Functioning gives an overall rating. The FAD has been found to have high levels of internal consistency across various types of families. It has been used to assess family functioning in a wide variety of clinical groups and in families of children with a wide range of difficulties, including psychiatric diagnoses.

RESULTS: 29 nurses working in Turgut University Hospital voluntarily participated in this study. Frequency of sexual intercourse was found to be correlated with the roles, behavior control subscales and total score of the FAD (p<0.05). Desire subscale of the FSFI was found to be inversely correlated with emotional function, behavior control, and the roles subscale of the FAD (p<0.05). Satisfaction subscale of the FSFI was found to be inversely correlated with behavior control subscale of the FAD (p=0.05).

CONCLUSIONS: According to the results of our study family relations should be investigated in the presence of sexual dysfunction. Family and marriage consultation and sexual consultation programs should be developed and applied effectively.

Eur Urol Suppl 2014; 13(7) e1430
S031: Evaluation of two novel urodynamic parameters in the diagnosis of female obstructive voiding

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INTRODUCTION & OBJECTIVES: The Blaivas-Groutz nomogram for female bladder outlet obstruction (f-BOO) has received a lot of criticism concerning its diagnostic accuracy, especially in the zone of mild obstruction. Two novel urodynamic parameters, the $P_dq > 2 Q_{max}$ (equivocal BOOI=$P_dq - 2Q_{max} >0$) and the URA ≥20 were recently proposed for the diagnosis of fBOO, during the 29th annual EAU congress 2014. Our purpose was to compare the diagnostic value of these two parameters in a retrospective analysis of urodynamic studies from a female patient cohort with treatment-resistant LUTS.

MATERIAL & METHODS: Women with mild BOO according to B-G nomogram were divided into three groups. Group A (BOOI <0), Group B (BOOI > 0 and URA < 20) and Group C (BOOI > 0 +URA ≥ 20). Uroflow and pressure flow parameters were compared between those three groups of females. Females with totally dysfunctional abdominal urination, without any detrusor contraction or without urinary flow during P-F study, were excluded from the study. One way ANOVA, unpaired t test and Fisher’s exact two-tailed test were used for statistical analysis.

RESULTS: Sixty three females fulfilled our inclusion criteria. Those were categorized as non obstructive (Group A, n=14) as obstructive only with BOOI > 0 (Group B, n=23) and as obstructive with both BOOI >0 + URA≥20 (Group C, n=26). Statistically significant differences (one way ANOVA test) between those three groups were found for: PVR (Post Void Residual during uroflow, p=0.005), BVE (Bladder Voiding Efficiency during uroflow, p=0.001), Qmax (maximum flow during pressure flow study, p<0.0001), Pdetmax (maximum detrusor pressure, p=0.01), PdetQmax (detrusor pressure during maximum flow, p=0.002) and BOOI (Bladder Outlet Obstruction Index, p<0.0001). The $P_dq >2 Q_{max}$ (=BOOI>0) parameter agreed with the B-G nomogram diagnosis of mild obstruction in 77.78% (n=49/63) of cases while the URA≥20 parameter only in 41.27% (n=26/63) (Fisher’s exact test p<0.0001). As expected, based on the high percentage of agreement, no uroflow parameter was found to be statistically different between mildly obstructive females according to B-G nomogram (n=63) and the obstructive females according to PdetQmax>2Qmax (n=49). On the contrary, BVE was found to be significantly different between the B-G mildly obstructive (n=63) and the URA ≥ 20 (n=26) obstructive females (67.58% vs 52.54%, unpaired t test=0.017). PdetQmax (29.87cmH20 vs 36.69 cm H20, unpaired t test p=0.0085) and Qmax during P-F study (10.57ml/s vs 6.69ml/s, p=0.0015) were found to be significantly different during the direct comparison between Groups B and C, respectively. Finally, we found that from the 37 women with BVE<80%, 62.2%, 21.6% and 16.2% were already categorized in groups C, B and A, respectively.

CONCLUSIONS: Based on these findings, we recommend the use of URA cut-off value 20 as a second more strict urodynamic parameter for the differential diagnosis of female BOO especially in those cases of physicians’ disagreement, the grey (mild) zone of female BOO of the Blaivas-Groutz nomogram. URA ≥20 in combination with the B-G nomogram augment the urodynamic diagnostic accuracy of female increased outflow resistance, independent of the primary pathophysiology (functional or anatomic cause).

Eur Urol Suppl 2014; 13(7) e1431
S033: The prognostic factors and overview of different scoring systems in Fournier's gangrene: Experience with 39 patients

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INTRODUCTION & OBJECTIVES: To evaluate prognostic factors in the survival of patients with Fournier’s gangrene and overview different validated scoring systems for outcome prediction.

MATERIAL & METHODS: We evaluated 39 patients who were treated for Fournier's gangrene in our clinic retrospectively. Data were collected on medical history, symptoms, physical examination findings, vital signs, admission and final laboratory tests, timing and extent of surgical debridement, and antibiotic treatment used. The FGSI and CCI were evaluated to predict outcome. The data were evaluated according to whether the patient survived or nonsurvived. All data were analyzed statistically by mann-whitney U test, Wilcoxon signed rank test and regression analysis.

RESULTS: Of the 39 patients evaluated, 8 (20.5%) died and 31 (79.5%) survived. Age of nonsurvivors did differ significantly from age of survivors 65 (43-83) vs 52 (30-90) (p=0.047). The median admission FGSI scores for survivors and nonsurvivors were 2 (0-9) and 6 (2-14) (p=0.004). The median CCI scores for survivors and nonsurvivors were 2 (0-10) and 6.5 (5-11) respectively (p=0.001). Except for the urea, albumin and hematocrit, no significant differences were found between survivors and nonsurvivors in the other admission laboratory variables (Table). Low albumin and advanced age were associated with mortality in our series (p=0.004, 95% CI 0.000-0.161; p=0.016, 95% CI 1.017-1.176 respectively).

Table: Serum admission and final parameters for survivors and nonsurvivors

<table>
<thead>
<tr>
<th>Variable</th>
<th>Survivors Median (Min-Max)</th>
<th>Nonsurvivors Median (Min-Max)</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age, yr</td>
<td>52 (30-90)</td>
<td>65 (43-83)</td>
<td>0.047</td>
</tr>
<tr>
<td>Admission time, d</td>
<td>4 (1-30)</td>
<td>3 (1-6)</td>
<td></td>
</tr>
<tr>
<td>Involvement surface, %</td>
<td>2.5 (1-7)</td>
<td>2.5 (2-8)</td>
<td>0.435</td>
</tr>
<tr>
<td>Urea, mg/dl</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Admission</td>
<td>41 (19-185)</td>
<td>141 (32-211)</td>
<td>0.011</td>
</tr>
<tr>
<td>Final</td>
<td>33 (11-79)</td>
<td>80 (23-180)</td>
<td>0.005</td>
</tr>
<tr>
<td>Creatinine, mg/dl</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Admission</td>
<td>1.2 (0.7-11.5)</td>
<td>1.8 (0.6-9.7)</td>
<td>0.105</td>
</tr>
<tr>
<td>Final</td>
<td>0.9 (0.6-9.2)</td>
<td>1.6 (0.6-8.5)</td>
<td>0.076</td>
</tr>
<tr>
<td>Hematocrit, g/dl</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Admission</td>
<td>39.7 (23-45)</td>
<td>31.7 (24-43)</td>
<td>0.041</td>
</tr>
<tr>
<td>Final</td>
<td>35.8 (28-51)</td>
<td>26 (23-38)</td>
<td>0.010</td>
</tr>
<tr>
<td>WBC, g/dl</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Admission</td>
<td>13.2 (7-34.4)</td>
<td>18.2 (8.2-21.5)</td>
<td>0.410</td>
</tr>
<tr>
<td>Final</td>
<td>9.1 (5.4-15.7)</td>
<td>10.6 (5.2-48.6)</td>
<td>0.632</td>
</tr>
<tr>
<td>AST, U/l</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Admission</td>
<td>23.5 (11-102)</td>
<td>31.5 (18-83)</td>
<td>0.282</td>
</tr>
<tr>
<td>Final</td>
<td>20.5 (9-99)</td>
<td>21 (9-68)</td>
<td>0.721</td>
</tr>
<tr>
<td></td>
<td>Admission</td>
<td>Final</td>
<td></td>
</tr>
<tr>
<td>----------------</td>
<td>-----------</td>
<td>---------</td>
<td></td>
</tr>
<tr>
<td>ALT, U/l</td>
<td>21 (9-145)</td>
<td>29 (1-975)</td>
<td>0.390</td>
</tr>
<tr>
<td>ALP, U/l</td>
<td>14 (4-106)</td>
<td>11 (2-162)</td>
<td>0.376</td>
</tr>
<tr>
<td>Total protein, g/dl</td>
<td>96.5 (59-738)</td>
<td>108 (76-314)</td>
<td>0.298</td>
</tr>
<tr>
<td>Operation time, minute</td>
<td>75 (45-180)</td>
<td>85 (60-120)</td>
<td>0.238</td>
</tr>
<tr>
<td>FGSI Score</td>
<td>2 (0-9)</td>
<td>6 (2-14)</td>
<td>0.004</td>
</tr>
<tr>
<td>CCI Score</td>
<td>2 (0-10)</td>
<td>6.5 (5-11)</td>
<td>0.001</td>
</tr>
</tbody>
</table>

**CONCLUSIONS:** Urea, albumin and hematocrit were associated with a worse prognosis. A high CCI and FGSI could well be associated with a worse prognosis in patient with FG.

Eur Urol Suppl 2014; 13(7) e1432
S036: Is hemorrhoids a risk factor for varicocele?

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INTRODUCTION & OBJECTIVES: The aim of the study was to evaluate the relationship between varicocele and hemorrhoids.

MATERIAL & METHODS: Two groups of patients were constructed. The first group consisted of consecutive 40 patients with varicocele. Standard assessment for varicocele was applied including physical examination by the same urologist. Second group included consecutive 40 patients with hemorrhoids. Standard assessment for hemorrhoids was applied including physical examination by the same general surgeon. Patients with a history of surgery regarding the perianal, inguinal and scrotal regions were excluded. Also patients who used drugs (diuretics, anticonvulsants, etc) affecting vascular system were not included. Semen analysis and scrotal Doppler ultrasonography were done all these 80 patients.

RESULTS: The mean age of first group was 20±5.1. On the other hand the mean age of the second group was 22.7±3.3. When the groups were stratified according to the results of physical examination, a total of 55 patients had simultaneously varicocele and hemorrhoids. On the other hand, 17 patients had only hemorrhoids, while 8 patients had only varicocele. In other worlds, about 80% of varicocele patients had also hemorrhoids, while 57.5% of patients with hemorrhoids had also varicocele. These three groups were compared regarding the semen volume, total sperm count, and sperm motility (table 1). The third group with patients having both varicocele and hemorrhoids had the worst sperm motility. Sperm count and motility were significantly higher in patients with only hemorrhoids (p<0.0001).

Table 1: Comparison of semen results of three groups of patients with only hemorrhoids (H), only varicocele (V), and hemorrhoids - varicocele (H+V).

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Mean</th>
<th>SD ±</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Semen volume (cc)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>H</td>
<td>17</td>
<td>2,824</td>
<td>1,261 7</td>
</tr>
<tr>
<td>V</td>
<td>8</td>
<td>2,438</td>
<td>9039</td>
</tr>
<tr>
<td>H+V</td>
<td>55</td>
<td>2,655</td>
<td>1,0796</td>
</tr>
<tr>
<td><strong>Total sperm count (mil)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>H</td>
<td>17</td>
<td>131,82</td>
<td>69,121</td>
</tr>
<tr>
<td>V</td>
<td>8</td>
<td>20,54</td>
<td>26,454</td>
</tr>
<tr>
<td>H+V</td>
<td>55</td>
<td>25,44</td>
<td>22,520</td>
</tr>
<tr>
<td><strong>Sperm motility (A+B, %)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>H</td>
<td>17</td>
<td>72,00</td>
<td>8,595</td>
</tr>
<tr>
<td>V</td>
<td>8</td>
<td>50,63</td>
<td>21,712</td>
</tr>
<tr>
<td>H+V</td>
<td>55</td>
<td>41,02</td>
<td>22,153</td>
</tr>
</tbody>
</table>
CONCLUSIONS: According the results of this preliminary study, hemorrhoids can be a risk factor for varicocele, and presence of both hemorrhoids and varicocele in a patient may be associated with lower motility.

Eur Urol Suppl 2014; 13(7) e1433
S037: AZFc region subdeletions in male infertility

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INTRODUCTION & OBJECTIVES: Approximately thirty percent of male infertility is still idiopathic. It is asserted that Y chromosome subdeletions (partial deletion) can be a reason of male infertility due to causing testicular failure. We aimed to investigate AZFc region subdeletions on Y chromosome and its clinical effects in patients with idiopathic infertility.

MATERIAL & METHODS: A total of 390 male patients with infertility and 87 control were enrolled the study between 2008 and 2012. Infertile group include patients with non obstructive azoospermia and severe oligozoospermia (sperm concentration<5mil./ml). Karyotype, Y chromosome microdeletion analysis and gr/gr, b2/b3 subdeletion were investigated in infertile group. gr/gr, b2/b3 subdeletions were searched in control group. The markers sY1191 and sY1291 were used to identify gr/gr and b2/b3 subdeletions with using Polymerase Chain Reaction and agaroz gel electrophoresis. The demographic and laboratory data and Assisted Reproductive Technology (ART) outcomes were compared. SPSS 18 were used for statistical analysis.

RESULTS: We observed nine gr/gr deletions in NOA group (4,1%), eight in OAT group (7%) and 11 in control group (12,6%). b2/b3 deletions were detected in 15 patients in NOA group (6,9%), 12 in OAT (10,3%) group and nine in control group (10,3%). gr/gr deletion were significantly higher in control group (p=0,026). There was no significant difference in b2/b3 subdeletion rates among groups (p=0,437). No statistical correlations between subdeletions and sperm concentration and ART outcomes (sperm retrieval, embryo development, pregnancy and testicular histology) were found.

CONCLUSIONS: Our data indicate that there was no significant correlation between AZFc region subdeletions and male infertility in our study which was performed first time in the Central Black Sea Region of Turkey.

Eur Urol Suppl 2014; 13(7) e1434
S038: Conservative medicamentous treatment of patients suffering from idiopathic oligoasthenospermia

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INTRODUCTION & OBJECTIVES: Idiopathic oligoasthenospermia is a condition of infertility whereby the cause of infertility is unknown. Around 25% of infertile patients suffer from idiopathic oligoasthenospermia. Conservative medicamentous treatment of idiopathic oligoasthenospermia is one of various types in treating of this disease. The aim of our study has been to estimate the success of conservative medicamentous treatment of infertile patients suffering from idiopathic oligoasthenospermia.

MATERIAL & METHODS: We have examined 63 infertile men suffering from idiopathic oligoasthenospermia and we have divided them into two groups. The first group of patients was treated with antiestrogen therapy (Tamoxifen) and the second group of patients was treated with low doses of androgene. Depending on the sperm count in semen, both groups were divided into two subgroups. The first group included patients in whom sperm count in semen was below 10.0 x 10⁶ ml and the second group included patients in whom sperm count in semen was over 10.0 x 10⁶ ml.

RESULTS: Study results shows that in application of antiestrogen therapy there are no significant changes in increase or decrease of semen volume. In patients in whom the sperm count is above 10.0 x 10⁶ ml there is no significant change in sperm count in semen nor is there a significant statistical difference regarding the progressive and total sperm motility. Morphological forms of spermatozoids in semen are not significantly changed.

CONCLUSIONS: The close inspection of our results in studying idiopathic oligoasthenospermia recommend that antiestrogen therapy should be used in infertile men in whom the sperm count in semen is below 10.0 x 10⁶ ml.

Eur Urol Suppl 2014; 13(7) e1435
S039: Is artery preservation varicocelectomy of better outcome than artery ligating technique in severe oligoasthenospermia?

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INTRODUCTION & OBJECTIVES: The aim of this work was to compare the impact of testicular artery preservation and artery ligation on seminal parameters, testicular size and spontaneous pregnancy rate in patients with infertility due to severe oligoasthenospermia.

MATERIAL & METHODS:

312 patients with clinical varicocele and severe oligoasthenospermia (A. recognizing the testicular arteries using intraoperative Doppler US, B. separating the testicular artery over a vessel loupe, C. ligation of the venous channels sparing the artery.

RESULTS: There was no significant difference between the 2 arms regarding the base line data as patients’ age, duration of infertility, testicular size and preoperative seminal parameters. The mean operative time was significantly longer in Artery preserving group 35.7±9.42min. vs. 29.7±8.62 min. Both groups showed significant improvement in sperm density and motility after 3 and 6 months, but the degree of improvement was more evident in the APV group except for sperm motility after 3 months which was comparable in both arms. After 12 months, testicular size didn’t significantly change in any of the 2 arms, and the spontaneous pregnancy rate was 34.67% and 25% in group A and B respectively.

CONCLUSIONS: This is a primary announcement that artery preservation varicocelectomy has a better outcome than artery ligating varicocelectomy on seminal parameters including sperm density and motility and also on spontaneous pregnancy rate in patients with severe oligoasthenospermia.

Eur Urol Suppl 2014; 13(7) e1436
S040: The role of varicocelectomy on the sperm recovery in nonobstructive azoospermia patients
Ustuner M., Yilmaz H., Ciftci S., Yavuz U., Simsek E., Culha M.
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INTRODUCTION & OBJECTIVES: Varicocele is the most common surgically correctable cause of male infertility. The effectiveness of varicocelectomy in non-obstructive azoospermic (NOA) patients with varicocele has been debated in the literature. The aim of this study is to evaluate the efficiency of varicocelectomy in NOA men with clinical varicocele and to determine predictive parameters for the success of surgery.

MATERIAL & METHODS: Between 2009 and 2014, a total of 39 NOA men with clinical varicocele who underwent tru-cut testicular biopsy and inguinal varicocelectomy were included in this prospective noncontrolled study. Postoperative semen analyses were performed in each patient after 3 months of varicocelectomy. Microsurgical testicular sperm extraction (micro-TESE) was performed to 21 men. Outcomes of sperm recovery was correlated with the variables of serum FSH level, varicocele grade, venous reflux, diameter of most dilated pampiniform plexus vein and the histology of testis.

RESULTS: The mean age was 31.59 (23-46) years. Varicocelectomy was bilateral in 21 and unilateral in 18 men. Histological examination findings are shown in Table 1. After a mean follow-up of 16.1 (3-46) months, sperm retrieval rate in ejaculate, in micro-TESE and overall were % 20.5 (8/39), % 52.4 (11/21) and % 46.2 (18/39), respectively. Testicular histology was not a predictive parameter for postoperative sperm improvement. Motile sperm was found in all testicular histologic types. Findings of the sperm recovery according to testicular histology are given in Table 1. Among the variables only venous reflux demonstrated a significant correlation with recovery of motile sperm (p=0.010)(Table 2).

Table 1. Distribution of sperm recovery according to preoperative testicular histology
(NS: Normal spermatogenesis, HS: Hypospermatogenesis, FS: Focal Spermatogenesis, LMA: Late Maturation Arrest, EMA: Early Maturation Arrest, SCO: Sertoli Only Syndrome)

<table>
<thead>
<tr>
<th>Preoperative histology (n)</th>
<th>NS</th>
<th>HS</th>
<th>FS+SCO</th>
<th>LMA</th>
<th>EMA</th>
<th>SCO</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sperm recovery (n)</td>
<td>3</td>
<td>3</td>
<td>4</td>
<td>2</td>
<td>2</td>
<td>25</td>
<td>39</td>
</tr>
<tr>
<td>Rate of sperm recovery (%)</td>
<td>100</td>
<td>100</td>
<td>50</td>
<td>100</td>
<td>50</td>
<td>28</td>
<td>46.2</td>
</tr>
</tbody>
</table>

Table 2. Evaluation of the parameters on the clinical success with univariate logistic regression

<table>
<thead>
<tr>
<th></th>
<th>OR (CI)</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Serum FSH</td>
<td>3.85 (0.94-15.65)</td>
<td>0.060</td>
</tr>
<tr>
<td>Varicocele grade</td>
<td>0.29 (0.07-1.238)</td>
<td>0.094</td>
</tr>
<tr>
<td>Venous diameter</td>
<td>0.96 (0.23-3.89)</td>
<td>0.950</td>
</tr>
<tr>
<td>Venous reflux</td>
<td>6.68 (1.57-28.29)</td>
<td>0.010</td>
</tr>
</tbody>
</table>

CONCLUSIONS: Varicocele repair can provide motile sperms in NOA men with clinical varicocele. Testicular histology was not a predictive parameter for sperm recovery. NOA men who had clinical varicocele with venous reflux had better sperm improvement after varicocele repair.

Eur Urol Suppl 2014; 13(7) e1437
**INTRODUCTION & OBJECTIVES:** We aimed to assess the presence of a relationship between testicular atrophy and prolonged time with undescended inguinal testis (UIT). We also evaluate an age related pathologic diagnosis (PD) in patients with UID.

**MATERIAL & METHODS:** In our institute between 2009 and 2013, 43 patients with UID underwent inguinal orchiectomy. Pathologic reports of these patients were evaluated retrospectively. We classified the patients into 4 groups according to PDs; testicular agenesis (TA), atrophic testis (AT), Sertoli cell only (SCO) and maturation arrest (MA). We also classified the patients into 2 according to age; group 1 younger than 13 and group 2 older than 13. We compared the age groups and PDs using Fischer exact test. We assessed the age related histopathologic features, testicular intraepitelial neoplasia (TIN) and testicular malignancy.

**RESULTS:** Median age of patients was 22 (1-49). Left and right orchiectomies were 23 and 20, respectively. The comparison of TA, AT, SCO and MA in both groups were shown in table. None of the patients in group 1 were diagnosed as SCO. In group 2, SCO was the most common PD. Otherwise, significantly MA was more diagnosed in group 1 (p<0.005). Also TA was high in group 1; however, the difference were insignificance. In addition, TIN and/or testicular malignancy were not revealed in any of the patients.

Table. The comparison of PDs in group 1 and 2

<table>
<thead>
<tr>
<th></th>
<th>group 1</th>
<th>group 2</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>TA</td>
<td>5 (55.6%)</td>
<td>4 (44.4%)</td>
<td>0.478*</td>
</tr>
<tr>
<td>AT</td>
<td>2 (25%)</td>
<td>2 (22.2%)</td>
<td>0.001*</td>
</tr>
<tr>
<td>SCO</td>
<td>0 (0%)</td>
<td>17 (100%)</td>
<td>0.098</td>
</tr>
</tbody>
</table>

* Fischer's exact test

**CONCLUSIONS:** We did not detect any normal spermatogenetic activity in both groups. Interestingly, the frequency of MA was high in preadolescent population. SCO was just detected in post-adolescence. Thus earlier surgery may be essential to preserve fertility.

Eur Urol Suppl 2014; 13(7) e1438
S042: Effects of low-energy shockwave therapy on angiogenesis factors at the penile tissue of diabetic rats

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INTRODUCTION & OBJECTIVES: Low-energy shockwave therapy (LESWT) has been shown to improve erectile function of patients suffering from diabetes mellitus (DM)-associated erectile dysfunction (ED). However, the underlying mechanism has yet to be discovered. The aim of this study is to investigate effect of L-ESWT on angiogenesis factors at penile tissue in a diabetic rat model. To our knowledge, this study is the first study evaluating eNOS levels at ESWT treated diabetic rat penile tissue.

MATERIAL & METHODS: Assessment of eNOS and VEGF mRNA expression levels.

Main Outcome Measure: Ten male rats were randomly chosen to serve as normal control (N group). The remaining rats were injected intraperitoneally with 60 mg/kg of streptozotocin (STZ) to induce DM. Ten of these rats were randomly chosen to serve as DM control (DM group) whereas the remaining rats were subject to shockwave (L-ESWT) treatment (DM+LESWT group). Each rat in the DM+LESWT group received 300 shocks at an energy level of 0.1 mJ/mm² and frequency of 120/minute. This procedure was repeated three times a week for 2 weeks. Afterward, all rats were sacrificed and their penile tissue were examined to determine angiogenesis factors.

RESULTS: STZ dosing caused a significant decrease in eNOS level and the ESWT restored it up to original levels similar to ones in control group. (1 vs 0.56 rq, p<0.005; 0.56 vs 0.85 rq, p<0.05). Levels of another angiogenesis factor VEGF also decreased after STZ treatment but was statistically not significant. Restoration of VEGF expression level similar to eNOS was observed in DM+SW group and results were almost identical to non-diabetic control group. (1 vs 0.82 vs 1.04 rq; not significant).

CONCLUSIONS: Mechanism action of ESWT in the penile tissue retains its enigmatic nature. A potential explanation was described as the neo-angiogenetic influence of this treatment on the penile tissue and the restoration of decreased eNOS and VEGF expression levels in diabetic rats supports this hypothesis.

Eur Urol Suppl 2014; 13(7) e1439
**INTRODUCTION & OBJECTIVES:** In this study, it was aimed to evaluate the role of various comorbidities that lead to removal of penile prosthesis due to infection.

**MATERIAL & METHODS:** We reviewed the records of 50 patients who were applied malleable penile prosthesis implantation between January 2010 and May 2014. The patients were classified into 2 groups: Group 1 (n = 11), the patients whose prosthesis were removed due to infections developed in post-operative period; Group 2 (n = 39), the patients who did not have any infectious complications. The two groups were compared regarding the presences of diabetes mellitus (DM), hypertension (HT), smoking habit, atherosclerotic heart disease (ASHD), Peyronie disease and the level of mean preoperative glycosylated hemoglobin (HbA1c).

**RESULTS:** There were not any differences between the two groups regarding the presences of DM, HT, smoking habit, ASHD and Peyronie disease (P > 0.05) (Table). However, there was a significant difference (P = 0.006) between group 1 and 2 regarding mean preoperative HbA1c levels (10.7 ± 1.6 and 7.4 ± 1.19, respectively).

### Table. Comparison of the groups regarding the presence of comorbidities

<table>
<thead>
<tr>
<th></th>
<th>Group 1 (n=11)</th>
<th>Group 2 (n=39)</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>DM</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Present</td>
<td>7</td>
<td>14</td>
<td>0.10</td>
</tr>
<tr>
<td>Absent</td>
<td>4</td>
<td>25</td>
<td></td>
</tr>
</tbody>
</table>

| Smoking  |                |                |    |
| Present  | 4              | 21             | 0.84|
| Absent   | 7              | 18             |    |

| HT       |                |                |    |
| Present  | 4              | 15             | 0.89|
| Absent   | 7              | 24             |    |

| ASHD     |                |                |    |
| Present  | 2              | 8              | 0.86|
| Absent   | 9              | 31             |    |

| Peyronie Disease |                |                |    |
|                 | 0              | 3              | 0.34|
|                 | 11             | 36             |    |

*Chi-square test

**CONCLUSIONS:** Having a normal HbA1c level is more important than being diabetic or not, regarding penile prosthesis removal due to postoperative infection.

Eur Urol Suppl 2014; 13(7) e1440
**INTRODUCTION & OBJECTIVES:** Sleep apnea is characterized by, intermittently cutting of upper respiratory airflow with obstructive or the central causes. Sleep apnea is frequently associated in patients with type-2 diabetes, obesity, hypertension, coronary artery disease, heart failure. However, erectile dysfunction (ED) is a frequent occurrence in male patients with obstructive sleep apnea syndrome (OSAS), the relationship between the degree of sleep apnea and erectile dysfunction score is unknown.

**MATERIAL & METHODS:** Thirty four OSAS patients admitted to our sleep laboratory with the complaints of OSAS included to the study. The severity of OSAS was determined by evaluation of daytime sleep tendency using the Epworth Sleepiness Scale (ESS), oxygen desaturation index (ODI), arousal index and the frequency of apnoea-hypopnea index (AHI) during sleep. ED were assessed using five-question International Index of Erectile Function (IIEF-5) questionnaire. Also body mass index (BMI) and neck circumference evaluated. Spearman correlation test assessed as to determine the correlation between IIEF scores and severity of OSAS.

**RESULTS:** Median age and BMI of the patients were 47±11 and 29,9±5, respectively. There were no correlation between IIEF score and the other parameters but the arousal index. There was a negatively significant correlation between arousal index and erectile dysfunction (p:0,04, r:-0,499).

**CONCLUSIONS:** In summary, OSAS in male patients can be considered as an underlying pathogenic factor for later development of ED. The mechanism underlying ED in patients with OSAS remains unclear similar to our study. We did not found any correlation between the severity of OSAS and ED in our preliminary results. However, a significant association between erectile dysfunction and arousal index were determined.

Eur Urol Suppl 2014; 13(7) e1441
S046: Penile modeling over inflatable penile prostheses in patients with peronie's disease and severe erectile dysfunction

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INTRODUCTION & OBJECTIVES: Penile prosthesis implantation for the treatment of Peyronie’s disease (PD) is indicated when the patient has concomitant erectile dysfunction (ED) that is refractory to medical treatment. Prostheses can produce a complete straightening of the penis in a large percentage of cases. Additional straightening manoeuvers may be required if a residual curvature persists. We report our experience of the management of PD combined with ED by modeling over inflatable penile prosthesis.

MATERIAL & METHODS: The medical records of the patients with PD and ED who underwent inflatable three-piece prosthesis implantation (IPP) between 2006 and 2013 were reviewed. Of the 37 patients, 12 underwent only IPP (Group 1), 12 IPP and manual remodeling (Group 2) and 13 IPP and plaque incision with or without grafting (Group 3). Patients’ characteristics were shown on table 1. The erectile function (EF) and satisfaction domains of the International Index of Erectile Function (IIEF) were used to quantify the overall efficacy and patient satisfaction.

RESULTS: Results: The mean preoperative curvatures were found as 28°(±8), 39°(±8) and 59°(±14) in groups 1, 2, and 3, respectively. After a 28 month mean followup, 1 patient in each group 1 and group 3, and 3 in group 2 had a residual curvature that doesn’t preclude vaginal penetration. One patient in group 3 required prosthesis revision surgery due to malfunction of the prosthesis. Significant improvements in the overall IIEF, EF domain, and satisfaction domain were seen in all groups.

Table 1. Patients’ characteristics

<table>
<thead>
<tr>
<th>Groups</th>
<th>n</th>
<th>Mean Age(year) (SD)</th>
<th>Mean penile length (cm) (SD)</th>
<th>Localization of curvature</th>
<th>Degree of curvature (mean±SD)</th>
<th>Residual curvature (n)</th>
<th>Total IIEF</th>
<th>IIEF-EF domain</th>
<th>IIEF-satisfaction domain</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group 1</td>
<td>12</td>
<td>56 (12,2)</td>
<td>11,3 (0,8)</td>
<td>Dorsal 6 Ventral 3 Lateral 2 Other 1</td>
<td>20-50 (28±8)</td>
<td>1</td>
<td>62,5 (9,4)</td>
<td>26,3 (2,7)</td>
<td>17,3 (2,3)</td>
</tr>
<tr>
<td>Group 2</td>
<td>12</td>
<td>63,6 (8,9)</td>
<td>10,1 (0,6)</td>
<td>Dorsal 7 Ventral 3 Lateral 2</td>
<td>30-60 (39±8)</td>
<td>3</td>
<td>70,1 (7,0)</td>
<td>27,5 (4,0)</td>
<td>18,7 (2,3)</td>
</tr>
<tr>
<td>Group 3</td>
<td>13</td>
<td>58,6 (7,2)</td>
<td>9.7 (0,5)</td>
<td>Dorsal 6 Ventral 4 Lateral 2 Other 1</td>
<td>40-90 (59±14)</td>
<td>1</td>
<td>65,6 (15,4)</td>
<td>25,6 (6,9)</td>
<td>17,6 (4,8)</td>
</tr>
</tbody>
</table>

SD: Standard deviation
CONCLUSIONS: Appropriate penile modeling over an IPP in patient with severe PD and ED corrects the curvature, as well as improve erectile function.

Eur Urol Suppl 2014; 13(7) e1442
S047: Could erectile dysfunction predict future coronary artery disease among gensini or syntax scores?

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INTRODUCTION & OBJECTIVES: The association between erectile dysfunction (ED) and coronary artery disease (CAD) has been investigated for a long time. But there were no specific studies evaluating the CAD that have been definitely proposed by Gensini or Syntax scores. We aimed to investigate whether ED is correlated with the extent of angiographic Gensini and Syntax scores in a group of CAD patient.

MATERIAL & METHODS: 147 male patients who underwent coronary angiography due to the chest pain between November 2013 to May 2014 were included the study. After the stabilization of the patient, they were asked to fill the IIEF-5 questionnaire. Gensini and Syntax scores were calculated. Gensini scores were grouped as ≤40 and >40. Also Syntax scores were grouped as <22, 22-33 and >33. Common risk factors such as age, diabetes mellitus, smoking, hypertension and also testosterone levels are recorded.

RESULTS: Among the 147 patients with a mean age was 61,5±0,9 years (range:32-82). Of these patients severe ED rate was 57,8% and moderate ED rate was 27,2%. There were no statistically significance between Gensini and Syntax scores with ED (p:0,780 and p:0,927, respectively). In addition that we have not found any correlation between testosterone levels and the angiography results. The presence of diabetes aggravated the severity of ED (p:0,45).

CONCLUSIONS: The severity of ED was not correlated with the Gensini and Syntax scores documented by the coronary angiography, in man with acute chest pain. But the presence of DM had a significant influence over ED in patients with CAD.

Eur Urol Suppl 2014; 13(7) e1443
INTRODUCTION & OBJECTIVES: Acute renal post ureteral calculi is the pattern of consultation to which the Algerian urologist is obligated to establish a course of exigent action to relieve his patients’ sufferings. Since the last decade, Algerian urologists are engaged to fight traditional open surgery to advocate adequate endourological solutions to their patients. The main concern of this paper is to highlight the chronology of development of endourological decisions taken in a ten-year span reflecting three distinct eras where the urologist tried to advocate appropriate solutions considering technical, practical as well as human standards conferring to an Algerian complex reality.

MATERIAL & METHODS: The selected ureteral calculi cases for this study are samples compiled over a period of ten years where each case is considered as being a good illustration of each era that is presented underneath:

- LASER Era: 2012 headlong. [Case One]
- Ballistic Era: Between 2008 and 2011. [Case Two]
- Shock Waves Lithotripsy Era: Between 2005 and 2008. [Case Three]
- Open Surgery Era: Before 2005. [Case Four]

Case One: Male aged 27 presenting with bilateral ureteral stones: A 20 mm stone in the right lumber and an 18 mm stone in the left pelvic ureter.

Case Two: Female aged 37 presenting with a 14 mm stone in the left pelvic ureter.

Case Three: Male aged 56 presenting with a 10 mm stone in the left lumber ureter.

Case Four: Female aged 44 presenting with bilateral ureteral stones: A 12 mm stone in the right pelvic ureter and an 11 mm stone in the left pelvic ureter.

RESULTS: All therapeutic decisions that have been taken for each case in every specific era had just one precise target, which was to relieve the patients’ sufferings relying solely on the available technical equipments and fitting procedures. For the above-mentioned cases, all the adopted decisions have been successful with varying degrees of performance:

- Ballistic Ureteroscope: Fragmentation and extraction of the fragments. Post-Op JJ stent.
- SWL: Fragmentation of the calculi in one session.
- Open surgery: Stones extracted in one piece.

CONCLUSIONS: Before 2008, open surgery has been the only treatment for stones in Algeria. The years between 2008 and 2011 witnessed the adoption of ballistic energy that has brought a kind of a less abrasive approach to the treatment of stone diseases. Since 2012, LASER has re-instated confidence in the use of conservative treatments as a first option. However, reality is quite different: Because of the financial confines of the majority of our patients, as an example with bilateral ureteral stones, the Algerian urologist, very often, finds himself obliged to resolve the obstruction in a single intervention, some practitioners are still adopting open surgery depending only on their patients’ choices.

Eur Urol Suppl 2014; 13(7) e1444
Comparison of flexible ureterorenoscopy and mini percutaneous nephrolithotomy in treatment of lower calyceal stones smaller than 2 cm

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Haseki Training and Research Hospital, Dept. of Urology, Istanbul, Turkey

INTRODUCTION & OBJECTIVES: The aim of this study was to compare the outcomes of flexible ureterorenoscopy and mini percutaneous nephrolithotomy in the treatment of lower calyceal stones smaller than 2 cm.

MATERIAL & METHODS: Patients who underwent flexible ureterorenoscopy (F-URS) and mini percutaneous nephrolithotomy (miniPNL) for the treatment of lower calyceal stones smaller than 2 cm between March 2009 and February 2014 were retrospectively evaluated. Each group included 20 patients. All patients were preoperatively diagnosed with intravenous pyelography or computed tomography.

RESULTS: Success rates for F-URS and miniPNL were 80% and 85%, respectively. Operation time, fluoroscopy time and hospitalisation time for F-URS and miniPNL patients were 63.10 minutes, 2.4 minutes, 28.3 hours and 105.16 minutes, 7.05 minutes, and 76.8 hours, respectively. All three parameters were significantly shorter among the F-URS group (p<0.001). Peroperative haemoglobin drop did not differ significantly (p=0.618). A comparison of complications according to the Clavien classification demonstrated significant differences between the groups (p=0.019). More patients in the F-URS groups developed fever that required antibiotics, and more patients in the miniPNL group required ureteral double J (DJ) catheter insertion under general anaesthesia.

Table 1: Preoperative patient demographics

<table>
<thead>
<tr>
<th></th>
<th>F-URS</th>
<th>miniPNL</th>
<th>All Patients</th>
<th>P Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number</td>
<td>20</td>
<td>20</td>
<td>40</td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td></td>
<td>0.311</td>
</tr>
<tr>
<td>Male</td>
<td>12</td>
<td>15</td>
<td>27</td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>8</td>
<td>5</td>
<td>13</td>
<td></td>
</tr>
<tr>
<td>Age (years)</td>
<td>45.75±12.98</td>
<td>39.84±17.815</td>
<td>42.87±15.60</td>
<td>0.242</td>
</tr>
<tr>
<td>BMI (Kg/M^2)</td>
<td>28±8.19</td>
<td>27.22±4.27</td>
<td>27.90±6.48</td>
<td>0.317</td>
</tr>
<tr>
<td>Stone area (mm^2)</td>
<td>191.65±52.50</td>
<td>202.75±97.50</td>
<td>197.20±77.50</td>
<td>0.657</td>
</tr>
<tr>
<td>Opacity</td>
<td></td>
<td></td>
<td></td>
<td>0.292</td>
</tr>
<tr>
<td>Opaque</td>
<td>17</td>
<td>19</td>
<td>36</td>
<td></td>
</tr>
<tr>
<td>Non-opaque</td>
<td>3</td>
<td>1</td>
<td>4</td>
<td></td>
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<td>Hydronephrosis</td>
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<tr>
<td>Side of surgery</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>
BMI: Body mass index

Table 2: Comparison of surgical results between the operation groups

<table>
<thead>
<tr>
<th></th>
<th>F-URS</th>
<th>miniPNL</th>
<th>P Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operation time (min)</td>
<td>63.10±27.12</td>
<td>105.16±38.25</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Fluoroscopy time (min)</td>
<td>2.4±1.39</td>
<td>7.05±4.26</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Hospitalisation time (hours)</td>
<td>28.30±33.67</td>
<td>76.80±29.75</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Haemoglobin drop (mg/dl)</td>
<td>0.38±0.97</td>
<td>0.15±1.78</td>
<td>0.618</td>
</tr>
<tr>
<td>Stone fragmentation device</td>
<td></td>
<td></td>
<td>0.07</td>
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<tr>
<td>No fragmentation</td>
<td>0</td>
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<tr>
<td>Laser</td>
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<tr>
<td>Laser pneumatic</td>
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<td>Ultrasonic</td>
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<td>Clavien score</td>
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<td>1</td>
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<td>CIRF</td>
<td>7</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Residual stone</td>
<td>4</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Stone-free</td>
<td>9</td>
<td>15</td>
<td></td>
</tr>
</tbody>
</table>

CONCLUSIONS: Although both F-URS and miniPNL have similar success rates for the treatment of lower calyceal stones, F-URS appears to be more favourable due to shorter fluoroscopy, operation and hospitalization times.

Eur Urol Suppl 2014; 13(7) e1445
S053: A prospective randomized, comparative trial of the effectiveness of dermal scarification and intramuscular diclofenac sodium injection in the treatment of renal colic

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1Aristotle University of Thessaloniki, Dept. of Urology, Thessaloniki, Greece, 2The Christie NHS Foundation Trust, Dept. of Urology, Manchester, United Kingdom

INTRODUCTION & OBJECTIVES:

Dermal scarification (intracutaneous injection of 1ml normal saline 0.9%) in the area of intensity of pain is considered as an alternative method to relieve renal colic (Figure 1). However, the success of this treatment in clinical practice has not yet been assessed. The objective of this study is to determine whether dermal scarification is effective as an alternative treatment for renal colic compared to diclofenac sodium intramuscular therapy.

MATERIAL & METHODS: A prospective, randomized controlled trial was conducted with methodologic rigor based on Consolidated Standards of Reporting Trials (CONSORT) criteria. A total of 291 patients, aged ≥18 years, suffering from acute renal colic were included in this trial and randomly assigned in two groups. Patients in the first group (A) received endodermal injection (dermal scarification) of 1 ml normal saline at the area of the pain reflection. The second group (B) received 75mg diclofenac sodium by intramuscular injection. The success of each method defined the primary end point. Pain intensity was assessed using a visual analogue scale (VAS). The time onset and the duration of analgesia were also recorded. In the event of initial treatment failure, 50mg of pethidine was injected intramuscularly.

RESULTS: There was no significant difference between the two groups regarding age (p = 0.083), hematuria (p = 0.158), stone identification at KUB (p = 0.751) and mean pain intensity (p = 0.609) before treatment initiation. The method was successful in 75.5% of patients in group A and 74.3% of patients in group B (p = 0.812). Mean pain reduction was comparable, 5.65 ± 3.05 in group A and 5.34 ± 2.99 in group B (p = 0.379), with dermal scarification eliciting its effect considerably faster, whereas the duration of analgesia was longer in the diclofenac group (p < 0.05).

CONCLUSIONS: Dermal scarification may be used as an alternative therapy for the management of renal colic, especially for select patients. This approach has immediate analgesic action and can be continuously repeated without any particular cost nor any fear of overdose or side effects.

Eur Urol Suppl 2014; 13(7) e1446
**INTRODUCTION & OBJECTIVES:** To evaluate the possible effects of residual fragments after shock wave lithotripsy on the health-related quality of life of the patients on a size related basis.

**MATERIAL & METHODS:** 86 patients with residual fragments after shock wave lithotripsy were divided into three groups; Group 1 (n:30 with fragments ≤2mm), Group 2 (n:21 2mm≤4mm) and Group 3 (n:35 >4mm). During a 3-months follow-up spontaneous passage rates, emergency department visits, mean analgesic required, additional procedures and the quality of life were all evaluated. Quality of life was evaluated using the Short Form-36 survey.

**RESULTS:** Of the 30 patients with fragments ≤2mm all cases passed the fragments spontaneously. Of the 21 cases with fragments 2mm≤4mm however 76% were stone free. Lastly of the 35 cases with fragments >4mm; 52% passed them spontaneously in 3 months. While no patient with fragments ≤2mm required emergency department visit, 19% of the cases with fragments 2mm≤4mm and 51.4% with fragments >4mm did require this visit. Mean analgesic need (mg) values were higher in cases with larger fragments. Evaluation of the quality of life score data in a subgroup comparison base showed that cases with larger fragments had prominently lower scores during both 1 and 3 month evaluation.

**CONCLUSIONS:** Residual fragments after shock wave lithotripsy could pose an impact on the quality of life of the cases in a size related basis. While fragments ≤2mm had nearly no impact on this aspect larger fragments could significantly affect the quality of life.

Eur Urol Suppl 2014; 13(7) e1447
S055: Laser lithotripter versus ultrasonic lithotripter in minimal invasive percutaneous nephrolithotomy: Comparison of two different techniques

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Haseki Training and Research Hospital, Dept. of Urology, Istanbul, Turkey

INTRODUCTION & OBJECTIVES: In this study, we compared the efficacy of laser lithotripter with ultrasonic lithotripter in minimal invasive percutaneous nephrolithotomy (Mini-Perc) operation.

MATERIAL & METHODS: From June 2013 to January 2014, medical records of 77 consecutive patients who underwent Mini-Perc operation were retrospectively evaluated. Ultrasonic lithotripter was used in 22 patients (Group 1), while laser was used in 55 patients. In laser group, 22 patients were randomly selected to compare with group 1 who had same characteristics (Group 2). All patients were initially evaluated with KUB postoperative day one. Total operative time, complications according to Modified Clavien classification, fluoroscopy time, hemoglobin drop, hospital stays and cost analysis were assessed.

RESULTS: Total operative time (p= 0.635) and fluoroscopy time (p= 0.248) were not significantly different between two groups. In the laser group, the stone clearance rate (81.8%) was notably more than ultrasonic lithotripter group (68.2 %) but there is no statistically significance. (p= 0.296) 10 reusable ultrasonic probe were used for 22 patients, due to thinness and sensitiveness of the probe. Conversely, one laser fiber (550 microne) was used for 22 patients. When the cost analysis of lithotripters was considered, the cost per case was 190 dollar in group 1 and 124 dollar in group 2. (p=0,154)

Table 1: Preoperative patient demographics

<table>
<thead>
<tr>
<th></th>
<th>Ultrasonic</th>
<th>Laser</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number</td>
<td>22</td>
<td>22</td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>15</td>
<td>14</td>
<td>0.750</td>
</tr>
<tr>
<td>Female</td>
<td>7</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>Body mass index (kg/m²)</td>
<td>25.1±9.3</td>
<td>26.2±3.6</td>
<td>0.584</td>
</tr>
<tr>
<td>Age (years)</td>
<td>40.6±14.8</td>
<td>44.4±12.6</td>
<td>0.385</td>
</tr>
<tr>
<td>Stone location</td>
<td></td>
<td></td>
<td>0.380</td>
</tr>
<tr>
<td>Upper pole</td>
<td>2</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Middle calyx</td>
<td>1</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Lower pole</td>
<td>4</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Pelvis</td>
<td>5</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Multiple</td>
<td>10</td>
<td>12</td>
<td>0.295</td>
</tr>
<tr>
<td>Access site</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Upper calyx</td>
<td>2</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Middle calyx</td>
<td>3</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Lower calyx</td>
<td>17</td>
<td>20</td>
<td></td>
</tr>
</tbody>
</table>
Table 2: Comparison of surgical results between the operation groups

<table>
<thead>
<tr>
<th></th>
<th>Ultrasonic</th>
<th>Laser</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hemoglobin drop</td>
<td>1,15±1,15</td>
<td>0,93±1</td>
<td>0,520</td>
</tr>
<tr>
<td>Stone free rate</td>
<td>(15)68,2%</td>
<td>(18)81,8%</td>
<td>0,296</td>
</tr>
<tr>
<td>Hospitalization time (hours)</td>
<td>79,6±38,7</td>
<td>74,2±22,1</td>
<td>0,569</td>
</tr>
<tr>
<td>Clavien complications</td>
<td></td>
<td></td>
<td>0,489</td>
</tr>
<tr>
<td>2</td>
<td>0</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>3A</td>
<td>6</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Operation time (minutes)</td>
<td>107±34,9</td>
<td>113,5±50,5</td>
<td>0,635</td>
</tr>
<tr>
<td>Fluoroscopy time (minutes)</td>
<td>6±4,5</td>
<td>7,7±4,6</td>
<td>0,248</td>
</tr>
<tr>
<td>Cost per case (Dollars)</td>
<td>190</td>
<td>124</td>
<td>0,154</td>
</tr>
</tbody>
</table>

**CONCLUSIONS:** Both laser lithotripsy and ultrasonic lithotripsy are equally safe and efficient stone fragmentation modalities in miniperc. Laser lithotripsy seems to be cost effective than ultrasonic lithotripsy during Mini-Perc operations.

Eur Urol Suppl 2014; 13(7) e1448
INTRODUCTION & OBJECTIVES: To determine the effectiveness of retrograde internal surgery for renal stone treatment in obese patients.

MATERIAL & METHODS: We retrospectively reviewed the data of 106 patients who had retrograde intrarenal surgery with the diagnosis of renal stone in our clinic. The patients were divided into three groups regarding their body mass indexes: ≥30 kg/m$^2$ being obese (group 1), 25-29.9 kg/m$^2$ being overweight (group 2), and 2 being normal-weight (group 3). The patients were compared for age, gender, stone characteristics (size, laterality, place, multicaliceal). In addition, the duration of surgery, stone-free rate (SFR), complication rate and the duration of the hospital stay were compared among the groups. Kruskal Wallis variance analysis was used for intergroup comparisons of continuous variables (Post hoc: Bonferroni), and Chi square test was used for comparison of categorical variables.

RESULTS: Twenty eight patients were obese (group 1), 49 patients were overweight (group 2) and 29 patients were normal-weight (group 3). The mean ages of groups 1, 2 and 3 were 51.5 (29-84), 47 (30-76) and 35 (19-84) years, respectively (p=0.001) (Table 1) SFR was 85.7% in group 1, 89.8% in group 2 and 75.9% in group 3 (p=0.24). The duration of surgery was similar in groups 1, 2 and 3, being 45.5 (25-95), 50 (30-120) and 45.5 (10-100) minutes, respectively (p=0.23). None of the patients had major complications (Table2).

Table 1: Preoperative characteristic of the groups

<table>
<thead>
<tr>
<th></th>
<th>Group 1</th>
<th>Group 2</th>
<th>Group 3</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age (y)</td>
<td>51.5 (29-84)</td>
<td>47 (30-76)</td>
<td>35 (19-84)</td>
<td>0.001*</td>
</tr>
<tr>
<td>Gender (no)</td>
<td></td>
<td></td>
<td></td>
<td>0.015</td>
</tr>
<tr>
<td>Female</td>
<td>18 (64.3%)</td>
<td>19 (38.8%)</td>
<td>8 (27.6%)</td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>10 (35.7%)</td>
<td>30 (61.2%)</td>
<td>21 (72.4%)</td>
<td></td>
</tr>
<tr>
<td>BMI (kg/m$^2$)</td>
<td>31 (30-40)</td>
<td>27 (25-29)</td>
<td>22 (18-24)</td>
<td></td>
</tr>
<tr>
<td>Stone size (mm)</td>
<td>14.5 (10-28)</td>
<td>15 (7-35)</td>
<td>15 (5-36)</td>
<td>0.97</td>
</tr>
<tr>
<td>Stone side (no)</td>
<td></td>
<td></td>
<td></td>
<td>0.61</td>
</tr>
<tr>
<td>Right</td>
<td>14 (50%)</td>
<td>19 (38.8%)</td>
<td>10 (34.5%)</td>
<td></td>
</tr>
<tr>
<td>Left</td>
<td>14 (50%)</td>
<td>29 (59.2%)</td>
<td>19 (65.5%)</td>
<td></td>
</tr>
<tr>
<td>Stone location (no)</td>
<td></td>
<td></td>
<td></td>
<td>0.97</td>
</tr>
<tr>
<td>Renal pelvis</td>
<td>8 (28.6%)</td>
<td>16 (32.7%)</td>
<td>10 (34.5%)</td>
<td></td>
</tr>
<tr>
<td>Upper calyx</td>
<td>2 (7.1%)</td>
<td>3 (6.1%)</td>
<td>3 (10.3%)</td>
<td></td>
</tr>
<tr>
<td>Middle calyx</td>
<td>2 (7.1%)</td>
<td>4 (8.2%)</td>
<td>4 (13.8%)</td>
<td></td>
</tr>
<tr>
<td>Lower calyx</td>
<td>9 (32.1%)</td>
<td>14 (28.6%)</td>
<td>7 (24.1%)</td>
<td></td>
</tr>
<tr>
<td>More than one calyx</td>
<td>7 (25%)</td>
<td>12 (24.5%)</td>
<td>5 (17.2%)</td>
<td></td>
</tr>
</tbody>
</table>

Table 2: Operative and post-operative outcomes of the groups
<table>
<thead>
<tr>
<th></th>
<th>Group 1</th>
<th>Group 2</th>
<th>Group 3</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operative time (min)</td>
<td>45.5 (25-95)</td>
<td>50 (30-120)</td>
<td>45.5 (10-100)</td>
<td>0.23</td>
</tr>
<tr>
<td>Stone-free rate</td>
<td>24 (85.7%)</td>
<td>44 (89.8%)</td>
<td>22 (75.9%)</td>
<td>0.24</td>
</tr>
<tr>
<td>Hospital length of stay (date)</td>
<td>1 (1-2)</td>
<td>1 (1-2)</td>
<td>1 (1-1)</td>
<td>0.61</td>
</tr>
<tr>
<td>Complication rate</td>
<td>2 (7.1%)</td>
<td>3 (6.1%)</td>
<td>0 (0%)</td>
<td>0.36</td>
</tr>
</tbody>
</table>

**CONCLUSIONS:** Our results indicate that retrograde internal surgery is a safe and efficient surgical method for renal stone treatment in obese and overweight patients.

Eur Urol Suppl 2014; 13(7) e1449
**S058: The effects of time Period after open nephrolithotomy surgery and ESWL to the success rate of percutaneous nephrolithotomy (PNL)**

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Bulent Ecevit University Medical Faculty, Dept. of Urology, Zonguldak, Turkey

**INTRODUCTION & OBJECTIVES:** Surgical approach to kidney stones dates back to old times. Treatment choices increased in parallel with technological advancements in years. PNL is a safe and effective method for kidney stones. Recently, PNL is the first choice of treatment for kidney stones that is larger than 2 cm and after the failure of ESWL treatment. There are many reasons that affects the success of PNL operation. In our study, we aimed to identify the contribution of history of kidney stone in the same kidney and the time elapsed after ESWL to the success rates of PNL operation.

**MATERIAL & METHODS:** We inspected 464 patients that has been treated with PNL in Bulent Ecevit University Faculty of Medicine, Department of Urology between June, 2002 and June 2012 retrospectively. All patients’ operation position, technique and anesthesia protocol was similar. While 114 (%24,5) patients in this study had ESWL before PNL due to their kidney stones, 350 (%75,5) patients didn’t experience ESWL procedure. 45 patients (%9,7) had open kidney stone surgery history in the same side, while 419 (%90,3) patients didn’t have any open kidney stone surgery history.

**RESULTS:** In order to analyze the effect of time interval between ESWL and PNL operation, groups were categorized into 4 subgroups: 0-1 month, 1-2 month(s), 2-3 months and 3 or more months. In groups that have similar age, gender and stone load there wasn’t a statistical significance for number of access, hospitalization period, nephrostomy removal time, residual stone and blood transfusion. In open kidney stone surgery group percutaneous intervention count, hospitalization period and nephrostomy removal time were found statistically significant. (p values p:0,008, p:0,006, p:0,03) respectively.

**CONCLUSIONS:** As a result, in our study we believe PNL operation is reliable and effective regardless of time after open kidney stone surgery and ESWL.

Eur Urol Suppl 2014; 13(7) e1450
INTRODUCTION & OBJECTIVES: The duration of urine leakage (DUL) following the removal of the nephrostomy tube after percutaneous nephrolithotomy (PCNL) shows significant variations depending on the techniques used. We aimed to assess the factors likely to influence the duration of urine leakage.

MATERIAL & METHODS: In total, 103 patients who underwent PCNL were reviewed retrospectively. DUL was evaluated regarding patient characteristics, thickness of the access line, presence of hydronephrosis, and residual stones.

RESULTS:

DUL was significantly prolonged in accordance with a decrease in the thickness of parenchyma tissue (R = -0.716, P < 0.001). DUL was prolonged as the degree of hydronephrosis (R = 0.526, P < 0.001) and the number of patients with residual stones (R = 0.273, P = 0.005) increased. Median DUL was significantly longer in patients with residual stones than those without residual stones (P = 0.002). In the receiving operating curve analysis, the optimum cut-off value of parenchymal thickness for hospitalization ≤12 h was 17.2 mm (sensitivity, 90.2%; specificity, 69.4%; P = 0.001).

CONCLUSIONS: We found that parenchymal thickness of the access line, hydronephrosis, and residual stones were the most influential factors determining DUL following PCNL, respectively.

Eur Urol Suppl 2014; 13(7) e1451
S060: Comparison of the analgesic effects of dexketoprofen and diclofenac for the treatment of acute renal colic

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INTRODUCTION & OBJECTIVES: Renal colic is a common presentation (lifetime risk 12% in men, 6% in women) causing significant pain and morbidity. Patients often describe the pain caused by the colic as extremely bothersome and severe. According to the EAU Guidelines, the first choice of analgesia during the renal colic are NSAIDs, e.g. diclofenac (unless contraindicated). However, the ideal analgesic is yet to be discovered. Dexketoprofen is used as an analgesic and anti-inflammatory agent, and is one of the most potent known in vitro inhibitors of prostaglandin synthesis. The aim of this study was to assess the efficacy and safety of dexketoprofen compared with diclofenac in patients with moderate to severe pain caused by renal colic.

MATERIAL & METHODS: 102 patients of both sexes aged 18-80 years with uncomplicated renal colic caused by the ureteral stone 40 mm at presentation were randomized to dexketoprofen 50 mg (Dexalgin, Berlin-Chemie) (n = 51) or diclofenac 75 mg (n = 51) i.m. in combination with antispasmodic drotaverine 40 mg i.m. Patients with complicated renal colic, pyelonephritis, acute renal failure, general contraindications to the use of NSAIDs, treatment with other NSAIDs, analgesics or antispasmodics within the previous 2 hours of study, hypersensitivity to the study drugs, history of serious medical conditions, pregnancy or lactation, alcohol or drug addiction were excluded from the study. Pain was assessed by visual analog scale (VAS) measuring 0-10 cm line, where 0 stands for no pain and 10 for the worst possible pain, measurements taken at 0, 15, 30, 60, 180 and 300 minutes. Opioid promedol 0.2 mg i.m. was used for the rescue analgesia. We assessed the 50% pain relief at 30 minutes, need for the rescue analgesia and adverse events.

RESULTS: The age, gender, and body mass index were comparable between the two groups (P > 0.05). Visual analog scores (mean ± SD) at 15, 30, 60, 180 and 300 minutes.

<table>
<thead>
<tr>
<th>Time</th>
<th>Diclofenac group</th>
<th>Dexketoprofen group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baseline</td>
<td>81.3±9.5</td>
<td>83.5 ±10.8</td>
</tr>
<tr>
<td>15</td>
<td>77.3±8.6</td>
<td>73.9±8.1</td>
</tr>
<tr>
<td>30</td>
<td>56.6±9.5</td>
<td>41.5 ±8.8</td>
</tr>
<tr>
<td>60</td>
<td>39.9±7.3</td>
<td>24.6 ±8.4</td>
</tr>
<tr>
<td>180</td>
<td>24.8±6.6</td>
<td>18.6±9.6</td>
</tr>
<tr>
<td>300</td>
<td>17.9±8.2</td>
<td>12.6±8.6</td>
</tr>
</tbody>
</table>

Self-reported pain declined sharply 60 min. after injection and remained stable. By 30 minutes 38 (74.5%) patients of the dexketoprofen group and 31 (60.8%) patients of the diclofenac group achieved a 50% reduction in the pain score (p < 0.05). Rescue analgesics at 60 minutes were required by 3 (5.9%) and 5 (9.8%) patients receiving dexketoprofen and diclofenac respectively. In comparison with diclofenac dextroketoprofen has a faster onset of action and provides with stronger analgesia (p < 0.05). The following minor AEs were observed in the dexketoprofen versus diclofenac group: nausea/vomiting (4 vs 5 patients), dizziness (3 vs 0 patients), recurrence of renal pain (1 vs 3 patients) and pain at site of injection (1 vs 4 patients).
CONCLUSIONS: Both drugs are effective for the pain relief. Dexketoprofen is a strong analgesic for the treatment of moderate to severe pain caused by renal colic, with a good safety profile and an efficacy exceeding that of diclofenac. The significantly greater effect of dexketoprofen early after administration suggests a faster onset of action, which is very important for the pain relief in this condition.

Eur Urol Suppl 2014; 13(7) e1452
S061: Is (Kidney Injury Molecule-1) KIM-1 a non-invasive marker to predict the appropriate interval between ESWL sessions in the treatment of kidney stones?


1Samsun Training and Research Hospital, Dept. of Urology, Samsun, Turkey, 2Dicle University, Dept. of Urology, Diyarbakır, Turkey, 3Samsun Training and Research Hospital, Dept. of Medical Microbiology, Samsun, Turkey, 4Atatürk University, Dept. of Urology, Erzurum, Turkey

INTRODUCTION & OBJECTIVES: ESWL may cause kidney injury through ischemia and oxidative stress in renal papillae and cortex. KIM-1 is a transmembrane glycoprotein substance that is released by proximal tubulus cells of kidney following ischemic injury. We aimed to investigate the severity of kidney injury following ESWL and to predict the reasonable intervals between ESWL sessions.

MATERIAL & METHODS: A total of 40 patients who underwent ESWL (27 males, 13 females) were included in this study (Table 1). Another otherwise healthy 40 people served as controls. The mid-stream urinalysis were obtained for all patients prior to ESWL and following ESWL at 1st hour, 1st day, 1st week and 1st month. KIM-1 levels were analysed using ELISA. Mann-Whitney U and Two-Way ANOVA tests were used for statistical analysis and a p value < 0.05 was considered as statistically significant.

RESULTS: KIM-1 levels were higher in all patients in ESWL group than controls (p<0.05) (Table 2). In ESWL group, KIM-1 levels obtained at 1st hour and 1st day were significantly higher than those of 1st week and 1st month (Figure 1).

CONCLUSIONS: KIM-1 can be used as a non-invasive marker for kidney injury in earlier period following ESWL. Besides, we concluded that, kidney injury recovered at 1 week after ESWL, therefore, ESWL could be applied safely at 1 week intervals.

Eur Urol Suppl 2014; 13(7) e1453
S063: Is micro-percutaneous nephrolithotomy surgery technically feasible and efficient under spinal anesthesia?

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1Mevlana University, Dept. of Urology, Konya, Turkey, 2Bezmialem Vakif University, Dept. of Urology, Istanbul, Turkey

INTRODUCTION & OBJECTIVES: We aimed to evaluate the clinical and operative effects of the type of anesthesia on micro-PNL surgery.

MATERIAL & METHODS: We retrospectively reviewed the patients who underwent microperc surgery between August 2011 and September 2013 from two referral center. The patients were divided into two groups according to administration of the type anesthesia. We evaluated the patients in terms of stone size and number, fluoroscopy and operation time, stone-free rates and patient-related parameters. Statistical analysis was performed using with Mann-Whitney-U and Chi-square tests.

RESULTS: A total of 116 patients were evaluated including group 1 (n: 53) with general anesthesia and group 2 (n: 63) with spinal anesthesia. Although the difference of mean age of patients was statistically considerable (30.3±22.1 vs 45.8±14.6, p<0.001), the mean body mass indexes of groups were similar (25.8±7.1 vs 27.0±4.9 kg/m², p=0.689). There was no statistically significant difference in terms of sizes, numbers, and localizations of stones in the comparison of groups (151.0±75.51 vs 155.08±84.91 mm², p=0.970 and 1.35±0.69 vs 1.45±0.59, p=0.795). The success rates were 90.5% (5/53) in group 1 and 93.6% (4/63) in group 2, but the difference was not statistically significant (p=0.297). CIRF were seen in 3 patients in group 1 and 3 in group 2. While a statistically significant difference was found in comparison of operative times of group 1 and group 2 (59.62±32.56 vs 40.98± 26.45 minutes, p<0.001), there was no statistically significant difference in mean fluoroscopy times (124.92±84.2 vs 105.2±61.0 seconds, p=0.441). We also found no statistical differences between two groups regarding to mean hemoglobin change and hospitalization time respectively (1.14±0.49 vs 0.91±0.72 mg/dL, p=0.015 and 34.4±17.8 vs 33.5±15.4 hours, p=0.917). Blood transfusion was not required in any of the patients in each group. The complication rates and visual analogue scores were also similar (%9.5 vs %9.4 and 2.9±1.7 vs 2.8±1.3, p=0.543 and p=0.365). A total of 6 complications including technically complication due to impairments of instruments in two patients, renal colics requiring stent insertion (Clavien IIIa) in three patients and urinary tract infection (Clavien I) in one were observed in group 2 postoperatively. While two patients underwent abdominal drainage (Clavien IIIa) due to serious extravasation, renal colics requiring stent insertion (Clavien I) were seen in three patients in group 1 postoperatively.

CONCLUSIONS: Micropercutaneous nephrolithotomy is safe, feasible and efficacious under spinal anesthesia. We may consider spinal anesthesia for patients who carry a high risk and those have concerns with general anestheisa.

Eur Urol Suppl 2014; 13(7) e1453
S064: The effect of Charlson’s comorbidity index on Clavien-Dindo classification system in percutaneous nephrolithotomy

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INTRODUCTION & OBJECTIVES: Percutaneous Nephrolithotomy (PNL) has been a recent and popular procedure for the treatment of renal stones. The data about PNL, that is widely applied and having various complications, have been obtained from several medical centers. Therefore, the standardization is required for informing the patients and determining or differentiating the degrees of complications. The Clavien-Dindo Classification used in laparoscopic live-donor nephrectomy, laparoscopic radical prostatectomy, transurethral trostatectomy and recently in percutaneous nephrolithotomy is widely and frequently used today. Having stressed the vital importance of comorbid conditions, The Charlson’s Comorbidity Index has been formed. The impact of physiologic changes in patients based on their ages to the operation complications have been investigated in many studies. In this context by taking the ages of patients into account, we have tried to figure out the impact of comorbid conditions on complications identified after PNL operations in our clinic.

MATERIAL & METHODS: In this study, the preoperative comorbidities of 360 patients, who had undergone a PNL procedure at the Department of Urology, Bülent Ecevit University, Faculty of Medicine between June 2002 and June 2012, have been evaluated by the Charlson’s Comorbidity Index age-adjusted and their postoperative complications using the Clavien-Dindo Classification System.

RESULTS: We have not observed a significant difference between the ratios of postoperative complications, taking into account the caliceal entry and ASA risk profile.

CONCLUSIONS: We think that the recognized preoperative comorbidities are not risk factors for PNL procedures and operations.

Eur Urol Suppl 2014; 13(7) e1454
INTRODUCTION & OBJECTIVES: Percutaneous nephrolithotomy (PNL) has been a common method used in treatment of renal stones for many years. It became also a preferable method in pediatric patients after enough experiments in adults. In this study the result of our pediatric PNL patients are presented.

MATERIAL & METHODS: Between November 2003-October 2013 70 children patients underwent PNL operation. These operations were applied to children who had enough hydronefrosis because of using adult instruments. Average age is 11.8 (3-16). 34 kidneys were left and 36 were right. 63 cases (90%) were primary, 7 cases (10%) were secondary. Amplatz dilatation was made 30F in 63 patients, 20F in 1 patient, 22F in 5 patients and 24F in 1 patient. Ureterorenoscope were used in patients; who were dilated 20F, 22F and 24F.

RESULTS: The mean calculi area was 427.5 mm² (50-2500). Mean anesthesia duration was 92.79 minutes (45-165) and mean operation time was 52.6 minutes (15-115). Mean renal access number was 1.33 (1-4). 9170 cc saline (3000-21000) was used averagely. Mean fluoroscopy time was 5.64 minutes (1.2-21.4). There was no problem during access formation. The stone free rate on discharge was %82.8 (58 patient). 11 patient (%15.7) had residual fragments smaller than 4mm. PNL was unsuccessful in one patient. 12 patients (%17.1) required blood transfusion. No other patients had major complication. The mean postoperative stay was 3.3 days (2-8) and mean spent time with nephrostomy was 2.5 days (0-5).

CONCLUSIONS: PNL can be done in pediatric stone patients by using adult instruments with similar successful and complication rates. But patient selection is important. The patients with enough body mass and hydronefrosis should be preferred. In smaller child, it is suitable to use pediatric instruments.

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S067: Percutaneous nephrolithotomy in horse-shoe kidney

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INTRODUCTION & OBJECTIVES: Horse-shoe kidney is the most common congenital renal anomaly. Percutaneous nephrolithotomy (PNL) in horse-shoe kidney is different from normal kidney because of abnormal anatomic configuration and vascularization. Lower pole calyx is generally not suitable for puncture due to medial location. Upper pole calyx puncture is more suitable and safer because of more posterior and lateral location. In this study, the results of PNL in 48 patients with horse shoe-kidney were presented.

MATERIAL & METHODS: November 2003 and October 2013, 48 patients (6 female, 42 male) had undergone PNL operation (20 right, 28 left). Mean patient age was 43.27 years (21-71 years). PNL were primary in 38 renal units (%79.1), secondary in 5 units (%10.4), tertiary in 3 (%8.3) units and quarternary in 1 (%2) unit. In all cases 30 F amplatz dilation was performed and stones were disintegrated by pneumatic and ultrasonic lithotriptor.

RESULTS: The mean stone surface area was 607.6 mm² (88-2695 mm²). Mean anesthesia duration was 95.44 minutes (45-185 minutes) and average operation time was 53.86 minutes (15-150 minutes). Mean renal access number was 1.37 (1-4). (16 upper pole, 27 middle pole, 16 lower pole). Complete clearance was achieved in 41 kidneys (85.4%). We didn’t face any complications. No patient was needed blood transfusion. Nephrostomy tubes were stayed 2.5 days (2-7 days) averagely and mean postoperative hospital stay of patients were 3.5 days (2-15 days).

CONCLUSIONS: PNL can be done safely in patients with horse-shoe kidney, but the abnormal configuration and vascularization of kidneys are not forgotten during surgery.

Eur Urol Suppl 2014; 13(7) e1456
INTRODUCTION & OBJECTIVES: Hydronephrosis is the distention of the renal calyces and pelvis with urine as a result of obstruction of the outflow of urine distal to the renal pelvis. Kidney Injury Molecule (KIM-1) is a transmembrane glycoprotein that is a biomarker for renal tubular damage that is upregulated in proximal tubular cells following ischemic or nephrotoxic injury (1). In this study, we aimed to evaluate whether levels of urinary KIM-1 levels increase in patients with higher degree of hydronephrosis and larger ureteral stones.

MATERIAL & METHODS: The study included 39 ureteral stone patients that were planned to undergo ureterorenoscopy (URS) with different degrees of hydronephrosis and 40 healthy control patients. The degree of hydronephrosis (by ultrasonography), the localization of the ureteral stone (high-middle-low ureteral) and the size of the stones (cm²) were noted. The levels of urinary KIM-1 molecule were detected before ureterorenoscopy (URS) (U1), and postoperative at 2nd (U2), 24th Hour (U3), 7th day (U4) and 30th day (U5) in the study group and compared with the urinary KIM-1 levels of the control group. The urinary KIM-1 levels were compared between the patients with ureteral stones of different size, localization and the degree of hydronephrosis.

RESULTS: The demographic findings of the patients were similar between the groups (Table 1). The levels of urinary KIM-1 is significantly higher in the study group compared with the control group. Interestingly, the levels of KIM-1 were both higher at preoperative, postoperative 2nd, 24th hour, 7th day and 30th day compared with the control group (Table 2). The patients with higher degree of hydronephrosis showed statistically significantly higher levels of KIM-1 compared with the lower degree of hydronephrosis and also significantly higher levels of KIM-1 with any degree of hydronephrosis compared without hydronephrosis (Table 3, 4). The localization of the ureteral stone showed no difference in aspect of levels of KIM-1 between the patients in the study group. There were statistically significant difference of only the 30th day urinary KIM-1 levels (U5) between the stones with <0.49 cm² and >1 cm² (Table 5, 6, 7).

CONCLUSIONS: Elevated urinary KIM-1 levels at the end of the first month after URS shows continued renal injury due to ureteral stone. Longer periodic follow up should be performed to detect the time of resolution of renal injury. The degree of hydronephrosis is proportional to the higher levels of urinary KIM-1. The most attracting finding of the study is that the localization of the ureteral stone is not important and the size of the stone and the degree of the hydronephrosis is the most important factor leading renal injury.

Eur Urol Suppl 2014; 13(7) e1457
INTRODUCTION & OBJECTIVES: Percutaneous nephrolithotomy (PNL) is a common method used in treatment of renal stones. In this study, the results of our first 2280 PNL cases were presented.

MATERIAL & METHODS: Between November 2003 and October 2013, 2280 renal units (1117 right, 1163 left) of 2280 patients (933 female, 1347 male) underwent PNL operation. Mean patient age was 45.8 years (3-81). PNL was performed in 212 patients (9.2%) with staghorn calculi, in 56 patients (2.4%) with solitary kidney, in 48 patients (2.1%) with horse-shoe kidney. 70 cases (3%) was pediatric patients (age between 3-16). PNL was performed primary in 1856 patients (81.4%), secondary in 358 patients (15.7%), tertiary in 59 patients (2.55%) and quaternary in 7 patients (0.35%). Amplatz dilatation was performed in all patients.

RESULTS: The mean stone area was 707.7 mm² (20-9500 mm²). Mean anesthesia duration was 89.7 minutes (30-355) and average operation time was 55.7 minutes (15-520). Mean access number was 1.39 (1-7). Complete clearance was achieved in 1929 kidneys (%84.6). If residual fragments less than 4 mm is accepted as insignificant, success rate become %96.8 (2209/2280). Blood transfusion was made for 291 patients (12.7%). As a major complication; prolonged urine drainage was occured in 31 patients (1.3%), perirenal haematoma was occured in 16 patients (0.85%) pulmonary complications were developed in 37 patients (1.7%). Colon perforation was developed in 4 patients (0.2%). Bleeding which needs arterial embolisation was occured in 7 patients (0.4%). Urosepsis was occured in 4 patients (0.2%). Due to the procedure 3 patients died (two cases because of the critical urosepsis, one case because of the uncontrollable bleeding) The mean postoperative stay was 3.24 days (1-12) and mean time spend with nephrostomy was 2.5 days (1-25).

CONCLUSIONS: PNL is a minimally invasive, more comfortable and successful procedure in treatment of renal stones and it reduces the need for open surgery.

Eur Urol Suppl 2014; 13(7) e1458
S070: Percutaneous nephrolithotomy in solitary kidney calculi

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INTRODUCTION & OBJECTIVES: Percutaneous nephrolithotomy (PNL), nowadays can be made in widespread conditions, like solitary kidney, staghorn calculi etc. In this study we evaluate the results of PNL operation in solitary kidneys and its early effects to renal functions.

MATERIAL & METHODS: Between November 2003 and October 2013 PNL was performed to 56 solitary kidney patients (20 female, 36 male). The mean age was 41,7 years (21-83). 39 patients (69,6%) were primary and 13 (23,2%) were secondary and 4 were tertiary (%7,1). 30F amplatz dilatation was performed for all patients. Preoperative and early post-operative renal functions were evaluated and effects of PNL operation on renal function were analyzed.

RESULTS: The average calculi area calculated by two dimensions was 1001 mm² (91-6175 mm²). Mean anesthesia duration was 105,7 minutes (55-360) and average operation time was 68,2 minutes (15-300). For each case 1.48 renal accesses (1-6) were made and averagely 11842 cc saline (3000-42000 cc) was used. Complete clearance was achieved in 47 patients (83,9%). 10 patients (17,8%) required blood transfusion. No major complication was seen. The mean postoperative stay was 3,68 days (1-7) and mean spent time with nephrostomy was 2,59 days (1-6). Preoperative BUN/creatinine values were 31,65/1,30 mg/dl and postoperative results were 31,45/1,44 mg/dl. No significant difference was detected between two results.

CONCLUSIONS: PNL in solitary kidneys have the same success and complication rates like double kidneys. No bad effect on renal functions had been seen at early postoperative time.

Eur Urol Suppl 2014; 13(7) e1459
INTRODUCTION & OBJECTIVES: This study aimed to present the treatment results and follow-up process of patients with bladder tumor below 35 years of age, who were admitted to our clinic.

MATERIAL & METHODS: The current study retrospectively evaluated 10 patients aged between 11-35 years. The mean age of the remaining six male and three female patients was calculated as 25.1 (11-35) years and the mean duration of follow-up was calculated as 25.5 (6-60) months (Table 1). Cystoscopy was done and the temporal tissues were resected by transurethral resection. In maintenance treatment, intravesical epirubicin or mitomycin injections for 6 weeks and 6 months was planned for patients who are pathologically Ta, intravesical Bacillus Calmette Guerin (BCG) injections for 6 weeks and 6 months was planned for patients who are pathologically T1.

Table 1: Characteristics of the patients

<table>
<thead>
<tr>
<th>Male</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>4</td>
</tr>
<tr>
<td>Age (year)</td>
<td>25.1 (11-35)</td>
</tr>
<tr>
<td>Follow up period (month)</td>
<td>25.5 (6-60)</td>
</tr>
</tbody>
</table>

RESULTS: As a result of the histopathological examination, nine of the patients (90%) were diagnosed with non-muscle invasive bladder carcinoma and one (10%) was diagnosed with benign papilloma. According to TNM classification: Eight of the non-muscle invasive bladder carcinoma (88.8%) were reported as Ta and one (11.1%) patient was reported as T1 (Table 1). Intravesical epirubicin was administered to five of the eight patients whose pathology was Ta and intravesical mitomycin was administered to three of them. Intravesical BCG was administered to one patient whose pathology was T1 (Table 2).

Relapse was detected in one patient whose pathology was T1, in the control cystoscopy that was done after the administration of intravesical BCG at the sixth week. Intravesical BCG therapy was started again, and no relapse was encountered in subsequent follow-up. No relapse was encountered in seven patients whose pathology was Ta in cystoscopy and radiological controls that were conducted throughout the follow-up period. Progression did not occur in any of the patients (100%) that were included the study (Table 3).

NMP-22 test was found as (+) only in the assessment of the patient with relapse before the cystoscopy. It was seen that the NMP-22 test was negative in the follow-up of all other patients. Table 2: Distribution of patients due to intravesical therapy

<table>
<thead>
<tr>
<th>Medicine</th>
<th>Pathology</th>
<th>Ta</th>
<th>T1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Epirubicin</td>
<td>5</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>BCG</td>
<td>3</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>
Table 3: Relapse and progression of the patients

<table>
<thead>
<tr>
<th>Pathology</th>
<th>Prognosis</th>
<th>Relapse (+)</th>
<th>Relapse (-)</th>
<th>Progression</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ta</td>
<td>-</td>
<td>8 patient</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>T1</td>
<td>1 patient</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Papilloma</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

**CONCLUSIONS:** The transitional epithelium carcinoma of the bladder is a disease that is rarely seen below 35 years of age. According to the literature data and the clinical results of this study, generally they appear as low grade and with good prognosis in young ages. However, further studies are necessary to determine the prognosis of high grade tumors below 35 years of age.

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S074: Predicting advanced bladder cancer by classification tree

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INTRODUCTION & OBJECTIVES: Accurate preoperative bladder cancer (BC) staging is key in the clinical decision-making. The aim of the study was to develop and compare the predictive accuracy of classification and regression tree (CART) method with logistic regression (LR) for predicting advanced BC.

MATERIAL & METHODS: In a single-centre retrospective cohort study design, data of 183 patients with BC undergoing radical cystectomy (RC) were analyzed: demographic, initial transurethral resection, hydronephrosis, abdominal and pelvic computed tomography (CT) and presence of advanced pathological stage on final pathology. Advanced BC was defined as pT3-4 tumor with/without lymph node metastases after pathological review. CART analysis based on Chi-squared Automatic Interaction Detector (CHAID) was conducted with same predictor variables. Various measures for the assessment of risk prediction models were determined, such as: predictive ability, accuracy, the area under the receiver operating characteristic curve [AUC]), calibration, and clinical utility using decision curve analysis.

RESULTS: Overall, 134 (73.2%) patients had advanced BC. The most decisive variables at the moment of classifications in both models were nodal enlargement on CT, presence of hydronephrosis and size of dominant tumour. Both models show good discriminatory ability (AUC 86.7 – 86.8), excellent accuracies (83.1 – 83.6), satisfactory calibration and similar Brier scores (0.122 – 0.117). LR model leads to the higher net benefit compared with CAID model.

CONCLUSIONS: We developed and compared the performance characteristics of the CART risk stratification tool with LR. Both models show similar performance quality. However, CART analysis allowed us for the construction the immediate and easily interpretable decision rules that can be easily applied in clinical practice. Before recommending its use in clinical practice, a larger and more complete database may be used to further clarify the differences between the CART and LR models in terms of prediction of the advanced BC.

Eur Urol Suppl 2014; 13(7) e1461
INTRODUCTION & OBJECTIVES: Sarcomatoid carcinoma (carcinosarcoma) is a biphasic tumor composed of malignant epithelial and mesenchymal tissues. Carcinosarcoma represents 0.3% of all bladder carcinomas. In the current case report, a 69-year-old male patient was admitted to our service for complaints of a painless and clotting macroscopic hematuria that had been ongoing for 6 months. The results of his abdominal CTs and MRIs confirmed a diagnosis of bladder cancer. Based on the results of the transurethral bladder tumor resection, a muscle invasive sarcomatoid carcinoma was reported. The patient then underwent radical cystoprostatectomy, ileal loop, and standard lymphadenectomy surgeries. In carcinosarcoma, the best predictive factor is the tumor stage. Mortality rate for carcinosarcomas is 80%, and average life expectancy following diagnosis is 14 months. As the number of cases is limited, there is currently no consensus regarding the treatment of carcinosarcomas. Even if muscle invasion may be absent in certain cases, the invasion of the lamina propria is always observed. For this reason, treatment by radical cystectomy is generally preferred; however, this treatment approach requires close follow-up. In recent years, the necessity for early adjuvant treatment has also been discussed. In light of the observations associated with our case, early radical surgery must be planned upon the pathological identification of carcinosarcoma, patients must be closely followed after surgery, and including adjuvant therapies to the treatment protocols should be considered if possible.

MATERIAL & METHODS: A 69-year-old male patient was admitted to our service for complaints of a painless and clotting macroscopic hematuria that had been ongoing for 6 months. During contrast magnetic resonance imaging (MRI), a mass lesion was observed. Cystoscopy revealed hematoma and tumor tissues that filled the entire bladder. A total of 282 cc of tumor and hematoma was resected by transurethral bladder tumor resection. The patient’s tumor was noted to have a 3 cm stem on the right lateral wall; the stem was also resected in its entirety. Pathological evaluations were positive for sarcomatoid carcinoma and invasion of deep muscle tissues. During pathological evaluations, it was observed that the CK7, CK5-6, and CD10 staining results were ambiguous; that the C20 staining results were negative; that the RCC, Vimentin, Uroplakin, SMA, and EMA staining results were positive; and that the S100 and PANCK staining results were focal positive. Radical cystoprostatectomy and ileal loop surgeries were performed on the patient. Radical cystectomy material also revealed muscle invasive carcinosarcoma. Standard lymphadenectomy pathology was reported as negative (pT2N0M0). No recurrence was observed in the follow-up performed on the sixth postoperative month.

RESULTS: In carcinosarcomas, the best predictive factor is the tumor stage. The mortality rate for carcinosarcomas is 80%, and the average life expectancy following diagnosis is 14 months. There is currently no standard treatment for carcinosarcomas. Even if muscle invasion may be absent in certain cases, the invasion of the lamina propria is always observed. As transurethral bladder tumor resection (TUR BT) may result in partial cystectomy or incomplete tumor elimination, radical cystectomy may be preferred as a treatment method for cases that are without muscle invasion. Despite radical surgery, local recurrence and distant metastasis are unfortunately very high in this type of cancer. Gemcitabine and cisplatin chemotherapy protocols used for bladder cancers can also be applied for carcinosarcomas; however, the number of studies regarding the use of gemcitabine and cisplatin in carcinosarcomas is very limited. Further multi-center studies are necessary in order to determine the suitable chemotherapy protocol for carcinosarcomas.
CONCLUSIONS: Carcinosarcomas are relatively rare and aggressive biphasic cancers that involve both epithelial and mesenchymal components. As the number of cases is limited, there is currently no consensus regarding the treatment of carcinosarcomas. The risk of local recurrence and metastasis in carcinosarcomas are high. Even if muscle invasion may be absent in certain cases, invasion of the lamina propria is always observed. For this reason, treatment by radical cystectomy is generally preferred; however, this treatment approach requires close follow-up. In recent years, the necessity for early adjuvant treatment has also been discussed. In light of the observations associated with our case, early radical surgery must be planned upon the pathological identification of carcinosarcoma, patients must be closely followed after surgery, and including adjuvant therapies to the treatment protocols should be considered if possible.

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S076: Highest serial Ki67 expression as an independent prognostic marker of the progression of Non Muscle Invasive Bladder Cancer (NMIBC)

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INTRODUCTION & OBJECTIVES: The proliferative activity of tumors determined by Ki67 labeling index was found to correlate with aggressive behavior of many tumor types including bladder cancer. However there is no established cut-off to determine its prognostic value. Purpose of our study was to evaluate a possible correlation between the progression of NMIBC and Ki67 overexpression. In addition we recorded the prognostic significance of already established clinicopathological prognostic factors.

MATERIAL & METHODS: We studied retrospectively 304 patients diagnosed with NMIBC during 2001-2013. We recorded the age, the presence of CIS as well as the stage, the grade and the multiplicity of tumors. The value of Ki67 in initial surgery and in each relapse was also recorded. Four subgroups were created based on the median value of the initial ki67 (25%) and higher recorded value of Ki67 according again to its median value (35%). We assessed the prognostic significance of all parameters regarding the progression of the disease. The log-rank test and the Cox regression analysis were used.

RESULTS: Twenty-six patients (8.6%) had progression to muscle invasive disease at a median interval of 43 months. Higher progression rates were recorded in patients with a higher initial stage (T1 vs Ta) (HR: 9.63, 95% CI: 3.3-8.08, p < 0.01), higher grade (Grade 3 vs Grade 2) (HR: 4.55, 95% CI: 1.9 -7.91, p < 0.01), initial Ki67 > 25% (HR: 2.36, 95% CI: 1.08-5.14, p = 0.03) and higher Ki67 > 35% (HR: 4.54, 95% CI: 2.06-3.02, p < 0.01). No correlation was observed with CIS (p = 0.38), multiplicity (p = 0.93) and adjuvant use of intravesical instillations (chemotherapy or BCG) (p = 0.08). In the multivariate analysis the only independent prognostic factors were the higher stage (HR: 5.58, 95% CI: 1.67-8.9, p < 0.01) and higher Ki67 > 35% (HR: 5.49, 95% CI:1.49-5.32, p = 0.01).

CONCLUSIONS: In conclusion the Ki67 overexpression, based on its highest serial median value, may independently help in predicting those patients with high-risk NMIBC who may progress.

Eur Urol Suppl 2014; 13(7) e1463
INTRODUCTION & OBJECTIVES: The aim of our study was to evaluate the prognostic effects of hematologic parameters like preoperative leukocytosis, neutrophilia, lymphopenia and neutrophil/lymphocyte ratio (NLR) in patients who underwent radical cystectomy with diagnosis of bladder cancer.

MATERIAL & METHODS: The medical records of 369 patients who underwent radical cystectomy with diagnosis of bladder cancer, between January 1990 and June 2013, were reviewed retrospectively. 286 patients were included into the study who fullfilled the inclusion criteria. Age, gender, pathologic stage, lymph node involvement, preoperative hydronephrosis, histologic subtype, surgical margin status and lymphovascular invasion were recorded for every patient. Univariate and multivariate analysis were performed to determine the prognostic affect of preoperative leukocytosis, neutrophilia, lymphopenia and neutrophil/lymphocyte ratio (NLR) on disease specific survival. Additionally, the correlation between leukocytosis and other factors were evaluated.

RESULTS: According to the univariate analysis preoperative leukocytosis, neutrophilia and NLR were detected as negative prognostic factors on disease specific survival. There was no correlation for lymphopenia regarding prognosis. Preoperative leukocytosis, stage, lymph node involvement, histologic subtype, grade and age were determined as independent prognostic factors for disease specific survival, on multivariate analysis. The patients with leukocytosis had higher stage, grade and lymphovascular invasion.

CONCLUSIONS: Preoperative leukocytosis was detected as an independent prognostic factor in bladder cancer patients who underwent radical cystectomy.

Eur Urol Suppl 2014; 13(7) e1464
S080: HER2 genotypes and cell proliferative activity in urinary bladder carcinomas

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INTRODUCTION & OBJECTIVES: The Ile655Val polymorphism located in the transmembrane domain of HER2 protein seems to be involved in an increased dimerization, HER2 autophosphorylation and the formation of active receptors which may influence the growth and the proliferation of tumoral cells. The aim of this study was to investigate the HER2 codon 655 polymorphism, HER2 receptors, phosphorylated HER2 proteins (pHER2) and the rate of cell proliferation in bladder cancer.

MATERIAL & METHODS: Urinary bladder carcinomas obtained from 11 patients were analyzed for the presence of HER2 single nucleotide polymorphism at codon 655 using polymerase chain reaction followed by restriction fragment length polymorphism method. Expression of HER2 and pHER2 proteins was determined by immunohistochemistry. DNA content from a single tumor cell suspension was assayed by flow cytometry for S-phase fraction and DNA ploidy level.

RESULTS: HER2 overexpression was detected in 3/8 cases with Ile/Ile genotype. In the homozygous cases was observed an elevated S-phase fraction for HER2 positive samples versus HER2 negative samples. The 2/3 heterozygous tumors were non-diploid, HER2 positive and pHER2 positive also. The S-phase fraction was higher in carcinomas with Ile/Val genotype than in tumors with Ile/Ile genotype.

CONCLUSIONS: The urinary bladder carcinomas with Val allele tend to exhibit a higher proliferative capacity. Our data suggest that HER2 genotype determination can contribute to establish a genetic individual profile useful in development of personalized treatment strategies.

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S081: Our experience in surgical management of upper urinary tract TCC. Comparison between single and two incision nephroureterectomy technique

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INTRODUCTION & OBJECTIVES: Our purpose is to compare the results of single incision open nephroureterectomy with transurethral resection of the intramural ureter and conventional two incision operation.

MATERIAL & METHODS: In a retrospective analysis we collected data from a total of 378 patients who underwent open nephroureterectomy for upper urinary tract TCC from 1988 to 2009. The above group was divided into two subgroups according to the type of operation performed:
Group B, 186 patients in whom transurethral resection of the intramural ureter plus single incision nephroureterectomy were performed (1998-2009).
In all cases parameters such as overall survival, cancer specific survival, oncologic results, bladder recurrence, mean operative time, hospital stay and mean duration of catheterization, were assessed. All patients had a minimum follow-up period of 5 years.

RESULTS: In all patients of group B the ureter was extracted successfully in a transurethral way. Overall survival, cancer specific survival and oncologic results were statistically similar in both groups. No difference in bladder recurrence rate was noted as well. The mean operative time was statistically less in Group B while a trend of less hospitalization in the above patients was revealed.

CONCLUSIONS: Open single incision nephroureterectomy with transurethral resection of the intramural ureter is an oncologically safe and technically feasible operation.

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S083: The ewing’s sarcoma family of tumors of urinary bladder; A case report and the review of 15 cases

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INTRODUCTION & OBJECTIVES: Ewing’s Family of sarcomas includes 3 main types: Ewing’s sarcoma of the bone, extraosseus (extraskeletal) Ewing’s sarcoma, primitive neuroectodermal tumor (PNET). In English literature only 14 cases of Ewing’s family of tumors (PNET) of urinary bladder have been reported. We present here another case of primary PNET of the urinary bladder.

MATERIAL & METHODS: Presentation of a new case and review of 14 cases in English literature was performed.

RESULTS: A 38-year old woman was referred to our clinic with urinary bladder tumor on January 2014. She was presented with macroscopic hematuria. No distant organ or lymph node metastases were detected by the thoracic and abdominal computed tomography scan. The transurethral complete resection of the tumour was performed in February. Immunohistochemical and molecular genetic analyses confirmed the diagnosis of primitive neuroectodermal tumor/Ewing’s sarcoma (PNET/ES) arising from the bladder. After informed consent was obtained, radical cystectomy, extended lymph node dissection and ileal conduit was carried out. Histopathologic examination revealed a large Ewing-like sarcoma which had invaded into the deep muscle layer of the bladder without coexisting urothelial carcinoma. The patient was doing well after the surgery and discharged post-operative day 6th. She had been receiving vincristine, doxorubicin, cyclophosphamide and mesna chemotherapy, alternating with courses of etoposide, ifosfamide and mesna. She is alive and well with no evidence of disease since 5 months after surgery.

CONCLUSIONS: The PNET of urinary bladder is a rare antite. It was impossible to establish definitive guidelines on treatment regimen because of reported few cases in the literature. Only 14 cases have been reported in literature to date. The age of the patients range from 10 to 81 and the mean age is 46. Hematuria was the most frequent presentation symptom. 5 patients had immunodeficiency in their medical history. 1 due to renal transplantation, 1 due to transitional cell ca, 1 due to Hodgkin disease, 1 due to ALL and 1 due to chemotherapy for another malignancy. Radical cystectomy was performed in 4 patients and partial resection in 3 patients. One patient was inoperable because of frozen pelvis. The remainder managed with transurethral resection or conventionally. Multimodal therapy for the management of PNET is essential.

Eur Urol Suppl 2014; 13(7) e1467
S086: Colon cancer in the ureter - a rare cause of an engorged kidney

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INTRODUCTION & OBJECTIVES: The metastasis of intestinal carcinoma into the urogenital tract is a rare cause of an obstruction of the upper urinary tract. Until now, only case reports of retrospective diagnosis positions after nephroureterectomy exist.

MATERIAL & METHODS: Conventional histological features of urothelial carcinoma in biopsy material or in cytology did not differ from those of metastatic cells in the ureter. Only in the immunohistochemical analysis is a differentiation possible. In the absence of information from the surgeon this is not done routinely, which may lead to serious mistakes in the therapies.

RESULTS: An 82 year old woman was introduced to us by our surgical colleagues because of a right hydronephrosis with a proximal ureteral stone in April 2013. A percutaneous nephrostomy were first carried out. She had a history of a right hemicolecetomy with segment VI liver resektion in October 2010. Chemotherapy at that time was refused. In April 2012 there was a liver re-resection in segment VII, in June 2013 in segment VI. In each case it was a R0 resection. The CT-Staging in July 2013, showed only one new liver metastasis. During the ureteroscopic stone therapy we found a tumor in the middle third of the ureter. Because of the cytological and histological evidence of urothelial carcinoma a nephroureterectomy has been suggested but was then rejected by the patient. So we aimed for a laser resection via ureteroscopy in a palliative setting. The immunohistochemical work-up using CDX-2, cadherin-17, CK20, CK5, CK6, CK7, Uroplakin-2 and GATA-3 showed metastasis of the colon cancer. We initiated a palliative therapy.

CONCLUSIONS: In carcinomas of the ureter we should also think of this rare cause if an appropriate history is present. The pathologist should definitely be notified accordingly to the history in spite of the rarity. To this date only 5 similar cases in the world literature were presented.

Eur Urol Suppl 2014; 13(7) e1468
INTRODUCTION & OBJECTIVES: We compared the safety and efficacy of monopolar and bipolar transurethral resection of bladder tumors.

MATERIAL & METHODS: A total of 236 patients who underwent transurethral resection of bladder tumors were prospectively included in the study from May 2010 to May 2014. All patients with suspected bladder tumors were eligible for study inclusion. Those who refused consent and those undergoing routine restaging transurethral resection of bladder tumor were excluded from analysis. Patients were randomized, 117 in the monopolar arm and 119 in the bipolar arm. Study outcomes included the incidence of obturator jerk, bladder perforation, decrease in hemoglobin and sodium levels, rates of re-coagulation and blood transfusion, clot retention, transurethral resection syndrome and resection time. Parameters were measured using the chi-square tests and Independent Sample t-test, p<0.05 was considered significant.

RESULTS: The mean age of the patients was 62±13.7 years. Thirty-two patients were female and 204 were male. The incidence of obturator jerk and bladder perforation was greater in the bipolar arm. However, decreasing in hemoglobin and sodium levels, rates of re-coagulation and blood transfusion, and clot retention were greater in the monopolar arm. Statistical analysis did not show significant differences with regard to study outcomes between the groups (Table). There were no case of transurethral resection syndrome in two arms.

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CONCLUSIONS: Our results showed that monopolar and bipolar transurethral resection of bladder tumor had similar safety and efficacy in patients underwent bladder tumor resection.

Eur Urol Suppl 2014; 13(7) e1469
INTRODUCTION & OBJECTIVES: Transitional cell carcinoma (TCC) of urinary bladder cancer is highly prevalent malignancy. One of the hallmarks of malignant neoplasms is genome instability that could be evaluated by alterations of particular microsatellite loci (alternatively termed short tandem repeats). Certain abnormalities in different microsatellite loci are previously described in urinary bladder cancer. Overall, two phenomena are described regarding molecular analysis of those loci in clinical cancer research. Microsatellite instability (MSI) is observed as a difference of the lengths of the allele’s repetitive sequence in cancer tissue compared with the original length in the genomes of any non-malignant cells of the same patient. On the other hand, loss-of-heterozygosity (LOH) occurs when one of the microsatellite alleles present in constitutive (normal) DNA is missing in the paired tumor sample DNA. The objective of this study is to investigate if only two microsatellite loci are enough informative for detection of bladder TCC and if there are any correlation with clinicopathological parameters (histopathological grades, stages or 2-years follow-up outcome).

MATERIAL & METHODS: We analyzed tissue samples from 70 patients with histopathologically confirmed TCC of the urinary bladder collected by transurethral resection and normal bladder mucosa samples from 40 patients with non-malignant diseases. Individual microsatellite GSN and D18S51 alleles were amplified in paired samples of tissue and leukocyte DNA from each patient and were resolved by electrophoresis.

RESULTS: Of the 70 analyzed patients, 44 (57.14%) have remained free of tumor recidive, metastasis or cancer-related death within 2 years of obtaining the tissue sample. Twenty six patients have either local tumor recidive, distant metastasis or have died from those causes during this evaluation period. Microsatellite alterations in either locus, or in both, were detected in 46 out of 70 patients (65.71%) with TCC, but not in the control group of patients. Thus, the calculated sensitivity of this analysis is 65.71% and specificity is 100%. We found statistically significant correlation of the frequencies of patients with microsatellite alterations in the examined loci with the three grades of histopathological T-classification (G1, G2 and G3). However, no significant correlation was found with the stages (superficial and muscle-invasive) or with occurrence of metastasis or cancer-related death within the 2-years follow-up period. In 53 patients initially diagnosed with non-muscle-invasive bladder TCC, local recurrence was recorded in 15 patients (28.3%), but we found no significant correlation with the frequency of microsatellite alterations.

CONCLUSIONS: Microsatellite alterations in GSN and D18S51 loci were observed in almost two-third of 70 patients with urinary bladder TCC. This study indicates that two selected microsatellite markers could have a potential value in clinical and pathological evaluation of urinary bladder TCC, especially regarding the tumor grades. Additional studies and further method validation are needed.

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INTRODUCTION & OBJECTIVES: Urinary bladder cancer (UBC) is a significant health problem and is the fourth most common malignancy in the Western world. Early diagnosis and risk estimation of future progression after initial transurethral resection have a significant impact on prognosis in UBC patients. Since currently used screening methods demonstrate relatively poor sensitivity and specificity, the development of new molecular markers is necessary. Thus far, several potential molecular biomarkers for diagnosis and prognosis of UBC are considered including gene mutations, genomic markers, cytogenetic abnormalities and protein products. The objective of our study was to estimate the efficiency of simultaneous use of three different molecular markers in diagnostics of UBC patients. Those biomarkers are: mutant p53 protein accumulated in malignant cells' nuclei, over-expression of UHRF1 gene and genomic instability evaluated by alterations in two microsatellite loci.

MATERIAL & METHODS: In this study we have investigated tissue samples of histopathologically confirmed TCC of the urinary bladder derived from 70 patients. Normal urinary bladder mucosa obtained from 40 patients with nonmalignant diseases was used as a negative control. The molecular analyses included quantitative immunofluorescent detection of p53 protein in histological sections, determination of UHRF1 gene expression by RT-PCR, as well as PCR-based detection of microsatellite loci in genomic DNA from UBC patients. As a cut-off values, fluorescence intensity (for p53 protein) or expression values relative to housekeeping gene β-actin (for UHRF1 gene) that are 50% higher than the mean of control patients group were used. Individual microsatellite GSN and D18S51 alleles were PCR amplified in paired samples of tissue and leukocyte DNA from each patient and were resolved by electrophoresis.

RESULTS: Abnormal intranuclear accumulation of mutant p53 protein was identified in 69 UBC patients (98.57%) and in 2 control patients (5.00%). UHRF1 gene was upregulated above the cut-off value in 17 UBC patients (24.29%) and in only one control patient (2.50%). Microsatellite alterations in both or at least one loci (GSN and/or D18S51) were found in 46 patients with UBC (65.71%), but not in any control patient. We have already described results of those markers separately, but here we present the results from their combined use in the same patients. When simultaneous use is considered, all 70 UBC patients (100.00%) and only 3 control patients (7.50%) have abnormalities in at least one or more of those three biomarkers. Statistical analysis uncovered significant differences between the frequencies of abnormal and normal markers in UBC patients (p=0.0004). Estimated sensitivity of the combined use of those three molecular markers in our patient groups is 100% and specificity is 92.50%.

CONCLUSIONS: The result of this study indicates that combined use of three molecular markers (mutant p53 protein detection, UHRF1 gene expression and alterations in two selected microsatellite loci, are very sensitive and specific in detection of UBC. For confirmation of the potential value in routine use, additional studies involving large patient number and methods validation are needed.
S091: Superselective embolization of the vesical artery for the control of intractable hematuria secondary to bladder cancer

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INTRODUCTION & OBJECTIVES: We aimed to share our experience with the superselective embolization of the vesical artery performed with micro-catheter technique which we used as a palliative approach to control intractable hematuria in patients with bladder cancer.

MATERIAL & METHODS: Superselective embolization of the vesical artery with micro-catheter technique was performed in 12 bladder cancer patients whose hamaturia could not be controlled with other palliative methods in our clinic. Hemoglobin levels, packed red blood cells (pRBC) transfusion amounts, urethral catheter removal durations and complications before and after embolization were evaluated.

RESULTS: Mean patient age was 73.3 (65-85) years. As the embolization material, n-butyl-2cyabocrylate (glue) is used in 3 patients and polyvinylalcohol (PVA) particle used in the remaining 9 patients. In two of the patients, whose hematuria could not be controlled after PVA embolization, glue embolization has been performed as the secondary procedure within one week. As the embolization technique, superselective embolization of the vesical artery with micro-catheter technique was performed in all of our cases. In 4 patients, embolization of the vesical artery was performed only to the side of the tumor, which was determined with cystoscopy. Bilateral embolization was performed to the remaining 8 patients. Mean hemoglobin value before and after the embolization procedure was 7.9 g/dL and 9.2 g/dL, respectively. Blood transfusion need of patients before and after procedure were 4 (2-15) pRBC and 2.3 (1-4) pRBC, respectively. Mean urethral catheter duration after the procedure was 7 (2-16) days in 10 patients, who were treated one single embolization session. Urethral catheters were removed once the hematuria dissolved completely. There were no complications or mortality related to the treatment after the embolization procedure.

CONCLUSIONS: Superselective embolization of the vesical artery performed with micro-catheter technique is a safe and effective alternative in patients with intractable hematuria due to bladder cancer whose hematuria couldn’t be controlled with other palliative methods.

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S093: Can immediate second resection be an alternative for standardized second transurethral resection of bladder tumor?

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INTRODUCTION & OBJECTIVES: Bladder tumors are often understaged or residual tumors remain after initial TURB. It has been demonstrated that a second TURB can increase recurrence-free survival. Guidelines recommend us a second TURB when; after incomplete initial TURB; if there was no muscle in the specimen after initial resection, with exception of TaG1 tumors and primary CIS; in all T1 tumors; in all G3 tumors, except primary CIS. Though, most urologists recommend resection 2-6 weeks after initial TURB, there is no consensus about the strategy and timing of second TURB. We aimed to analyze the impact of an immediate second transurethral resection of bladder tumor protocol on the determination of the residual tumor status at initial TURBT session and recurrence rate in the primary resection area.

MATERIAL & METHODS: We prospectively evaluated and randomized 87 consecutive patients, who underwent TURB sessions for bladder cancer. Randomization was done by tossing a coin at the end of the initial resection. If immediate second resection choice was selected, another urologist done a second cystoscopy and resected the bed of the tumor or an ignored tumor. Exclusion criteria were as follows; solid tumors, high risk patients like as older than 70 years, ASA score less than 3, out of follow up patients, invasive tumors (≥T2 stage), and unresectable tumors. According to the inclusion criteria, of the 87 consecutive patients 19 patients (group I) underwent and 28 (group II) did not undergo immediate second resection of the tumor bed after complete TUR. All the immediate second resection were extended by taking additional deep and marginal specimens. After 4-6 weeks a second standardized TURB was done and all pathological results were evaluated. Also patient records and follow-up information was recorded.

RESULTS: Mean patient age of 47 patients was 63.1±11.4, and mean follow up period was 25.9±17.7 months. Patient age, sex distribution, number of tumors, pathologic T stage and grade were similar in both groups. Tumor was detected in two patients at immediate second resection in two patients, of these, one of them was a miss-diagnosed tumor and the other was diagnosed at the bed of the tumor by pathological examination. Tumor detected in 7 patients at second standardized TURB after 4-6 weeks. Only one of them was in group I and the others were in group II. None of these patients’ tumors were showed recurrence during follow-up. Tumor was detected in 5 patients which was considered as recurrence. Median time to recurrence was 12 month. Of these, 2 patients were in group I and the others were in group II. Only one patient’s tumor showed progression which was in group II.

CONCLUSIONS: Results of our prospective randomized study showed that residual tumors may remain after initial TURB either in tumor bed or different localization of bladder. Although our study has no large number of patients to make a final decision, our initial results showed that immediate second resection can reduce the number of cystoscopy procedures.

Eur Urol Suppl 2014; 13(7) e1473
S095: Bladder obstruction in woman-urodynamic evaluation

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INTRODUCTION & OBJECTIVES: Bladder outlet obstruction (BOO) in women, in literature, has a reported prevalence of 6–23%, in patients with lower urinary tract symptoms. After anti-incontinence procedures, the prevalence of urethral obstruction is reported, 4–22% for retropubic operation (Burch) and 2- 4% for tension-free vaginal tape. In the past, opinion was that bladder outlet obstruction in females is a relatively uncommon condition in clinical practice. Today, bladder outlet obstruction in woman, is not rare diagnosis and It is widely accepted that pressure flow studies are necessary to make the diagnosis of BOO. The aim of this study was to investigate the prevalence bladder outlet obstruction in women underwent urodynamics, due to lower urinary tract symptoms.

MATERIAL & METHODS: This is a retrospective review of 186 urodynamic studies which were performed on women who were referred for any kind voiding dysfunction. We have used definition BOO: Bladder outlet obstruction in women is a persistent, low, maximum "free" flow rate of 20 cm H2O, during pressure-uroflow studies. The study included women mean age 59 years (range 17-76 years). The following urodynamic variables were studied: Free peak urinary flow (Free Qmax), Maximum detrusor pressure at Qmax (PdetMax), Free postvoiding residual, Pressure-flow postvoiding residual.

RESULTS: In our study according the cutoff values : Q_{max} of max of> 20 cmH\textsubscript{2}O;15(8,1%) women were found to have bladder outlet obstruction. Of the 15 obstructed women, 5 (33,3%) had anterior-vaginal-wall prolapse, 4 (26,6% ) were diagnosed with dysfunctional voiding, 3 women (20%) detrusor-sphinter dyssynergy, 2 (13,3) previous anti-incontinence surgery, and 1 (6,6%) was with urethral stricture. Most patients (12 patients or 80%) reported both obstructive-type and irritative-type symptoms. Isolated only obstructive symptoms had 3 patients (20%). According Blaivas-Groutz nomogram: 91,9% patients was in group unobstruction (Type 0), 2 (1,07%) was in group mild obstruction (type 1), moderate obstruction 10 (5,4%) ( type 2), and 3 (1,61%) severe obstruction (type 3).

CONCLUSIONS: The prevalence of bladder outlet obstruction in women has been underestimated and this is an underdiagnosed condition. Urodynamics (specially videourodynamic), remains the diagnostic gold standard in women with bladder outlet obstruction.

Eur Urol Suppl 2014; 13(7) e1474
S105: Assessment of possible association between genetic variant rs895819 in miR-27a gene and infertility in males diagnosed with non-obstructive azoospermia (NOA) from Serbian population

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INTRODUCTION & OBJECTIVES: Despite significant improvement in the male infertility diagnostic procedures, its etiology remains unknown in more than half of cases. Idiopathic non-obstructive azoospermia (NOA) is diagnosed in infertile men who suffer from impaired spermatogenesis of unknown cause, accompanied by reduced number of spermatozoa in ejaculate. Experimental studies based on results of microarray analysis confirmed that RNA interference has important role in spermatogenesis, thus seminal microRNAs (miRNAs) could be used as potential biomarkers for male infertility. Furthermore, genetic variants affecting biogenesis and/or function of these microRNA could be associated with the increased risk of male infertility. Given that miR-27a was found to be underexpressed in abnormal semen of men diagnosed with NOA, the aim of this study was to evaluate possible association between potentially functional genetic variant rs895819 in miR-27a and infertility in males diagnosed with NOA from Serbian population.

MATERIAL & METHODS: This study included 81 men with idiopathic NOA and 93 fertile men used as controls. Genomic DNA was extracted from buccal swabs using commercial kits for DNA isolation. Genotypes for genetic variant in miR-27a gene were determined by allele-specific Polymerase Chain Reaction using self-designed oligonucleotide primers and self-optimized genotyping protocol. Genotyping data were processed using statistical program SNPstats. The exact test implemented in this software was used to assess potential deviation from Hardy-Weinberg equilibrium in control group. Using statistical tests based on logistic regression we examined differences in genotype distributions between infertile males and fertile controls. Association between alleles and genotypes of rs895819 and infertility in males with NOA was tested using five genetic models (Codominant, Dominant, Recessive, Overdominant, Log-additive).

RESULTS: In our study, no evidence of association between rs895819 in miR-27a gene and infertility in males with NOA was found under all five genetic models tested. The least P value was obtained for dominant genetic model, which still did not reach the statistical significance, nor the statistical trend of significance (0.1>P>0.05) (OR=1.05; 95% CI 0.57-1.92; P=0.88).

CONCLUSIONS: The results obtained in this study did not support the association between genetic variant rs895819 in miR-27a gene and infertility in males diagnosed with NOA.

Eur Urol Suppl 2014; 13(7) e1475
S106: Loupe-assisted varicocelectomy with testicular delivery and proximal spermatic cord occlusion with a tourniquet for primary infertility

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INTRODUCTION & OBJECTIVES: To evaluate the effectiveness of loupe-assisted varicocelectomy (LV) compared to the accepted gold standard microscopic varicocelectomy (MV) judged by semen parameters, post-operative complications and pregnancy.

MATERIAL & METHODS: This is an ongoing study. From 2011 to the time of writing of this evaluation, 95 infertile men with left varicocele underwent repair by LV (n=51) or MV (n=33). Two semen analyses were obtained before and 3 months after the procedure. All patients aged over 18 years, had clinical subfertility for at least one year, and/or abnormal semen parameters and a clinically palpable varicocele. LV was performed using a x2.5 surgical loupe. Proximal spermatic cord dissection was done after opening the inguinal canal, delivery of the testicle and placing a suture tourniquet to occlude the cord just above the internal ring. During dissection, the dilated internal spermatic/external spermatic and vassal veins were ligated and divided. Patients were followed up postoperatively at 3, 6, and 9 to 12 months. The operative time was recorded. The postoperative outcome was assessed by determination of the semen parameters, varicocele recurrence/persistence, presence of hydrocele, presence of orchialgia and pregnancy rate.

RESULTS: No intra-operative complications occurred. The two procedures led to significant postoperative improvement of semen parameters with slight numeric differences among the techniques that did not reach statistical significance. Significant postoperative improvements in sperm concentration and motility were observed after both approaches, but MV showed numerically (not significant) higher sperm concentration and percent active motility. Recurrent or persistent varicocele was identified by physical examination and/or color Doppler in four patients in the LV group and 3 patients in the MV group. This difference was not statistically significant (p > 0.05). No statistically significant difference was also observed in the post-operative complications between the two cohorts for all three Varicocele grades. The overall pregnancy rate was not significantly different between the two groups either.

CONCLUSIONS: The results of our study have shown that LV with testicular delivery and proximal spermatic cord occlusion, when compared to MV, had shorter operative time, equivalent beneficial effects on semen parameters, varicocele recurrence/persistence, complications and pregnancy rates. Because of these results and because the surgical loupes are much cheaper than the operating microscope, we primarily use LV for patients with clinical varicocele and subfertility.

Eur Urol Suppl 2014; 13(7) e1476
INTRODUCTION & OBJECTIVES: In spite of the widespread use of testosterone replacement therapy (TRT), there is limited data regarding the patients’ satisfaction and adherence to the treatment. The purpose of this study is to evaluate the factors which may have an impact on patients’ adherence to TRT prescribed for hypogonadism.

MATERIAL & METHODS: In this retrospective study, patients who had been prescribed testosterone gel therapy between January and September 2013 were retrospectively evaluated and their demographics were recorded along with their testosterone levels. Afterwards, those patients were reached via telephone and asked whether they still continue TRT and their reasons for quitting treatment were noted.

RESULTS: Of the screened patients, 60 men with a mean age of 40.9±9.9 years (range: 21-59) were prescribed daily transdermal testosterone gel 50 mg during the given period. Baseline total testosterone levels of 50 men (83.3%) were below 2.5 ng/ml. Of the patients, 31 (51.7%) could be reached via telephone and accepted to participate to the study and only 7 (11.7%) were still using TRT. The reasons for quitting TRT were no efficacy (18.3%), physicians’ recommendation (6.7%), deciding to stop after beneficial effect (5.0%) and other reasons (10%). Kaplan Meier estimation revealed that mean time to TRT withdrawal was 5.9±0.9 months. Parametric survival model using Frechet distribution revealed that neither being older than 45 years nor having lower testosterone level has an effect on adherence (P=0.528 and P=0.641, respectively).

CONCLUSIONS: Although testosterone gels are frequently prescribed by the physicians, patient adherence is low and being older or having low testosterone level does not affect patients’ satisfaction. Sexual medicine specialists are suggested to evaluate their patients carefully in terms of benefits and risk of TRT before prescribing these gels.

Eur Urol Suppl 2014; 13(7) e1477
S112: Frequency of nocturnal emissions and its psychological consequences among sexually naïve religious teenagers

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INTRODUCTION & OBJECTIVES: To assess the frequency of nocturnal emissions among sexually naïve religious teenagers.

MATERIAL & METHODS: A questionnaire was developed and administered to students staying in a religious dormitory. Data regarding demographic characteristics, masturbation habit and frequency of nocturnal emissions were collected. Moreover, students were asked about their beliefs regarding masturbation and nocturnal emissions.

RESULTS: A total of 113 male students with the mean age of 15.88±1.47 (range: 13-20) years were included. Of the students, 46 (4.4%) reported that they had never masturbated and 19 (17.3%) had never experienced nocturnal emissions. Nocturnal emission frequency was not correlated with age (p=0.092). Having nocturnal emissions was also not related to the duration since last masturbation (p=0.479). Subjects watching TV more than 3 hours/day had nocturnal emissions more than the ones who watch TV less (p=0.006). Of the subjects 13.6%, 12.6% and 67% believed that masturbation is good, permissible and sin, respectively whereas 59.1%, 20.4% and 7.5% believed that nocturnal emission is good, permissible and sin, respectively.

CONCLUSIONS: Although masturbation and nocturnal emissions are frequent among sexually naïve religious teenagers, a significant amount of them believe that they are sins. Watching TV seems to be associated with the frequency of nocturnal emissions. Further studies are required to elucidate the mechanism of nocturnal emissions.

Eur Urol Suppl 2014; 13(7) e1478
INTRODUCTION & OBJECTIVES: In our study; it’s investigated whether or not double J catheter applications in patients cause an increase in urinary system symptoms, have effects on quality of life and sexual functions.

MATERIAL & METHODS: In this study; total 70 cases (26 female, 44 male), in which double J catheter is applied unilaterally during their ureteral stone and kidney stone treatment are included. All patients were sexually active. Patients having acute urinary system infection, a history of urogenital system surgery, neurogenic bladder, urethral narrowness, bladder stone, over-active bladder, chronic prostatitis and benign prostatic hyperplasia, diabetes or neurological diseases are not included in this study. Before double J catheter is applied to all patients; IPSS, OABq, for male patients IIEF and for female patients FSFI evaluation forms are filled and their scores are determined. 3 weeks after this application; IPSS, OABq and IIEF or FSFI forms are filled again and their scores are compared with previous application results.

RESULTS: Mean age of 44 male patients included in this study is determined as 43.91 ± 11,33 years. Mean age of 26 female patients were 35.36 ±11.06 years. When all cases are evaluated; there was a statistically significant increase in total IPSS and total OABq scores of double J catheter applied patients compared to before application. According to evaluation of all male patients; there was a statistically significant decrease in IIEF-t scores. When subtitles of IIEF such as sexual arousal, coital satisfaction, orgasm, desire and general contentment evaluated separately; it’s determined that there was a statistically significant decrease in all of them. The evaluation of all female patients showed that there was a statistically significant decrease in FSFI-t score. When subtitles of FSFI such as sexual desire, arousal, lubricity, orgasm, general contentment and pain are evaluated separately; there was again a statistically significant decrease in all of them.

CONCLUSIONS: In double J catheter applied patients, there was an increase in IPSS and OABq scores which means an increase in prevalence of lower urinary tract infections. Also in double J catheter applied female and male patients, total IIEF and FSFI scores were decreased; so sexual functions are negatively affected.

Eur Urol Suppl 2014; 13(7) e1479
INTRODUCTION & OBJECTIVES: In this study, sexual dysfunction and factors affecting sexual functions in pregnancy period have been studied.

MATERIAL & METHODS: 159 pregnant women at different gestational weeks applied to the Antenatal Polyclinic at the Clinic of Obstetrics and Gynecology Department in The Şevket Yılmaz Research and Education Hospital between April 2013 and December 2013, were included in this study. Patients were asked to fill in Female Sexual Function Index (FSFI) form and 19 questions in order to assess their sexual functions. The relationship between the variables sperman series correlation coefficient of. Differences between the groups in the Mann Whitney, Kruskal Walles, Pearson Chi-square, Yates Chi-square, Fisher’s exact recover Chi-square test, and Freeman-Halton test were compared.

RESULTS: There was not any statically significant relationship in terms of age, height, weight, BMI, number of cesarean, number of vaginal delivery and level of income for both of sexual function lower scale and total sexual function scores. It has been found that regional discrepancies do not make any difference to both total and sexual function subgroups. Sexual dysfunction was found to be less common in university graduates than primary school (p=0.002) and secondary school graduates (p=0.014). As the gestational week increases, a decrease has been observed in total sexual function scores and all sexual function lower scales, except sexual drive. Furthermore, arousal, pain and total sexual function scores were found to be decreased in pregnant having a delivery history including episiotomy application. It was observed that use of forceps during previous deliveries has no effect on sexual functions. It was also determined that abortus has no significant effect on sexual functions. Moreover, it was determined that sexual dysfunction in housewives were more common than working pregnant. Increase in arousal (p=0.06), pain (p=0.041) and total sexual function (p=0.036) scores in the first pregnancy were found to be statistically significant. Furthermore, statistically significant differences in orgasm (p=0.046) and sexual success (p=0.016) scores were determined for all three pregnancy trimesters. Accordingly, sexual success (p=0.010) and orgasm (p=0.042) in the first trimester were significantly high compared to the third trimester as a result of paired comparison. In second trimester, sexual success (p=0.036) and orgasm (p=0.038) scores were significantly high compared to third trimester.

CONCLUSIONS: Sexual dysfunction is very common in pregnancy. It becomes more apparent as the gestational week increases. It has been found that the region of birth, age, weight, height, BMI, number of previous cesarean, number of vaginal delivery, using of forceps during vaginal delivery, abortus story and level of income of the pregnant have no effect on sexual function. In pregnant having a delivery history including episiotomy application; arousal, pain and total sexual function scores were less. It has been determined that sexual dysfunction in housewives were more common than working pregnant. Increase in arousal, pain and total sexual function scores in the first pregnancy were found to be statistically significant. Sexual success and orgasm in the first trimester were significantly high compared to the third trimester. In second trimester sexual success and orgasm scores were significantly high compared to third trimester.

Eur Urol Suppl 2014; 13(7) e1480
S116: The effect of transrectal ultrasound guided prostate biopsy on lower urinary tract symptoms and erectile functions

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INTRODUCTION & OBJECTIVES: In this study, the effect of transrectal ultrasound guided prostate biopsy on lower urinary tract symptoms and erectile functions are researched.

MATERIAL & METHODS: 81 patients who underwent TRUS-guided prostate biopsy with the suspect of prostate cancer between April and August 2013, are included in the study. All the patients are evaluated with IPSS(International Prostate Symptom Score) and IIEF-EFD(International Index of Erectile Function-Erectile Function Domain) before and 2-4 and 8 weeks after the biopsy. Patients with malign or suspicious pathology results are excluded from the study.

RESULTS: When all the patients are inspected, there is a statistically significant difference between IIEF-EFD scores before and two weeks after the biopsy (p=0.004). According to the research, there is no statistically significant difference between pre-biopsy and 4 weeks after biopsy IIEF-EFD scores of the patients with benign pathology, but there is a significant decrease for the patients with malign or suspicious pathology results (p<0.001). When patients are analyzed according to their lower urinary tract symptoms, it is observed that IPSS scores in the controls of 2. week increases significantly (p<0.001); however, the scores in the controls of 4. week does not different from the scores before the procedure. Especially, it is observed that significant raise of obstructive symptoms (p<0.001) causes this increase. The group which has malign pathology type does not have a significant difference in the controls of 4. week with respect to the pre-operation scores. However, the IPSS scores of the group which has benign pathology type significantly increased in the 2. week, but in the 4. week it decreased back to the scores before the procedure, and in the 8. week, it dramatically decreased. Quality of the life are examined by the question at the end of IPSS questionnaire, and according to the results it is inferred that the significant decrease in the quality of life in the first controls returns back to the scores before the procedure in the proceeded weeks.

CONCLUSIONS: After TRUS-bx, the decline of erectile functions in the early periods is temporary. However, in the patients group who have malign or suspicious pathology result, following the learning of the test results, erectile disfunction may evolve because of the psychologic reasons. LUTS, and especially obstructive symptoms, increase in the early periods of the procedure, and IPSS score rises. Malign pathology type has no effect on LUTS.

Eur Urol Suppl 2014; 13(7) e1481
S117: Patterns, risks and outcomes of urethral recurrence after radical cystectomy for urothelial cancer; over 20 year single center experience

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INTRODUCTION & OBJECTIVES: To evaluate the factors affecting urethral recurrence after radical cystectomy for bladder cancer and relationship between urinary diversion type and urethral recurrence rates.

MATERIAL & METHODS: In our 504 radical cystectomy series, 287 male patients whose final pathological were urothelial carcinoma were included in the study. The relationship between urethral recurrence and pathological stage, grade, lymph node involvement and diversion type was researched in addition to risk factors for urethral recurrence.

RESULTS: A Total of 287 patients. Orthotropic continent urinary diversion (OCD) and ileal conduit (IC) was performed after radical cystectomy in 141 (49.1%) and 146 (50.9%) patients respectively. Urethral Orecurrence was observed in 11 (3.8%) patients and urethral recurrence rates in OCD and IC groups were 1.4% and 6.2% (p=0.034). Pathological stages of recurrent patients were 2 pT1, 1 pT2 and 8 pT4 respectively (p<0.001). Urethral recurrence was significantly lower in OCD group when compared to IC group (p=0.036). When all parameters were analyzed using Cox multivariate regression analysis, the most important factor that affects urethral recurrence was pathological T stage (p<0.001). Risk factors for urethral recurrence were present in 92 patients. Urethral recurrence rates in patients with and without risk factors were 8.69% and 1.53% (p<0.01).

CONCLUSIONS: In this study, pathological stage was found to be the most important factor affecting urethral recurrence and prostatic stromal invasion was an important prognostic factor in these cases. Although risk factors for urethral recurrence were similar in both groups, urethral recurrence rates were significantly lower in OCD group when compared to IC group.

Eur Urol Suppl 2014; 13(7) e1482
S118: A carcinoma in situ of the ileum - a rare tumor entity of the neobladder

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INTRODUCTION & OBJECTIVES: Secondary adenocarcinomas of the neobladder develop in approximately 0.5% of patients in whom an ileal segment was used. This can occur up to 30 years postoperatively. The tumors are localized in the majority of cases in the site of the ureteroneoimplantation. So far in the literature only a handful are directly described as an ileal neobladder localized neoplasia. We report a rare case of a carcinoma in situ of the ileum used in a neobladder reconstruction.

MATERIAL & METHODS: A 74 year old patient was diagnosed with a papillary intramucosal neoplasia of the anterior wall of the ileal neobladder (carcinoma in situ of the ileum) 13 years after radical cystectomy. Two years earlier a nephroureterectomy has been performed because of an urothelial carcinoma of the left kidney and ureter. Due to the comorbidities of the patient, we aimed first for a transurethral approach. In the second resection a persistence of the tumor could be excluded.

RESULTS:

CONCLUSIONS: The surgery of tumors in orthotopic neobladders is possible if changes are diagnosed in time. In the present case, the endoscopic resection proved to be a feasible treatment reserved for special cases, also without having an effect on the continence itself. But it should be reserved for the treatment of individual cases. Alternatively, a conversion of the urinary diversion is to take into consideration.

Eur Urol Suppl 2014; 13(7) e1483
**S119: Which must be preferred to provide better comfort for both patient and doctor? Flexible or rigid cystoscopy**

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**INTRODUCTION & OBJECTIVES:** Cystoscopy under local anestesia, is the gold standard method to follow the patients with non-muscle invasive bladder cancer (NMIBC). Although cystoscopy under local anestesia is not comfortable as general anesthesis, it protects the patients from several morbidity of general anesthesis. When we chose the local anesthesis we face to pain and discomfort of the patients during procedure. Consequently, the least painful and irritant way should be developed to repeated follow up patients with NMIBC. Patient comfort and related factors during cystoscopy were studied several time. However interaction between doctor and patient comfort was not evaluated before. In this study, doctor and patient comfort and its relationship during flexible and rigid cystoscopy are evaluated.

**MATERIAL & METHODS:** All patients were randomly assigned into two group according to the type of cystoscope, flexible (Group 1, n=55) or rigid (Group 2). All cystoscopies were performed by only one urologist had five years experience on endourology. A 15.5 F flexible (FC) or 17 f rigid cystoscope (RC) was used after skin preparation with polivinilpirolidon iodine 10 %, and intraurethral injection of 10 mL of 2% lignocaine gel. After 3 minutes of intraurtehral local anesthetics, cystoscope was introduced from urethral meatus via plain isotonic solution. Additionally, rigid cystoscopy (RC) had positional difference, which health personel had to prepare the patient to dorsal lithotomy. Urethral meatus, urethra, prostatic urethra, prostate, bladder and ureteral orifice were evaluated.

After completion of cystoscopy, doctor took operation note, scored his own comfort during procedure and remarked disturbing factors during cystoscopy. At the same time a nurse who was blinded to the randomization of patient, fill the patient’s demographic values and pain score.

**RESULTS:** Patients’ comfort was evaluated via 10 cm VAS scale which was blindly asked by nurses. Mean VAS score of group 1 and 2 are 1,49 ± 1,05 (0-4) and 4,42 ± 1,96 (2-7), respectively. Differences of pain score felt by patients were statistically meaningful. Also operational comfort of the doctor was evaluated as good-moderate-bad. Doctor felt as good at 55 (100%) patients on group 1, and at 25 (51%) patients in group 2 (p<0,001). The most important reason of uncomfortable cystoscopy is the patient irritation and pain (n: 24, 87.5%).The other reasons were difficulty to watch extreme sides of the bladder, minimal bleeding during cystoscopy blocked to take a better vision, and etc., were rarely seen.

**CONCLUSIONS:** Although flexible cystoscope is more expensive than rigid one, cystoscopy procedure related morbidity of flexible is lesser. Patient morbidity and discomfort causes readmission to the hospital and cause new diagnostic workup and prescription. Cumulative cost of flexible cystoscopy is cost-effective by reducing additional expenditure. On the other hand, making doctors more comfortable during operation, increase the accuracy of diagnosis and success of procedure.

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S120: Influence of urinary tract infection on the clinical course of bladder cancer

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INTRODUCTION & OBJECTIVES: A number of studies in recent years highlight the evidence to support the hypothesis that patients with chronic cystitis of different etiology are predisposed to bladder cancer (BCa) development. At the same time, today the problem of the influence of chronic urinary tract infections (UTI) on the clinical course of BCa is not well understood. The aim of our study was to investigate the effect of UTI on the clinical course of transitional cell carcinoma of the bladder.

MATERIAL & METHODS: The study was conducted on the basis of a retrospective analysis of case histories of 366 patients with bladder tumors (T1-T2) admitted to the urological department for surgery. The Kaplan-Meier method was used to compare relapse-free survival, time to tumor progression, downgrade and final treatment option (radical or palliative) in BCa patients with or without concomitant UTI. The log-rank test was used to assess the statistical significance between the two groups. Cox regression analysis with calculation hazard ratio (HR) 95% confidence intervals (CI) was used to predict the risks of above-mentioned end points in comparing groups.

RESULTS: Symptoms of urinary tract infections were detected in 144 (39.3%) patients. Invariable and multivariable analysis showed a statistically significant increase in the risk of BCa relapse in the presence of concomitant UTI (HR = 1.88 (95% CI 1.24-2.85), p = 0.003 and HR = 1.91 (95 % CI 1.24-2.93), p = 0.003, respectively). Median time survival without relapse was 1,422 and 2,120 days for the group, respectively, with concomitant UTI and without it. Thus, a longer disease-free survival was observed in patients without concomitant UTI (p = 0.002). No statistically significant differences in survival before the progression, downgrade and final treatment, depending on the presence of UTI were found (p = 0.263, p = 0.177, p = 0.503, respectively).

CONCLUSIONS: 1. Chronic urinary tract infection occurs more than in one-third (39.3%) patients with bladder cancer. 2. The presence of concomitant urinary tract infections in bladder cancer patients is an independent risk factor for recurrence of the tumor. 3. There was no convincing evidence to support the effect of urinary tract infections in the progression, reducing the level of differentiation and reduction in time to carry out radical treatment.

Eur Urol Suppl 2014; 13(7) e1485
S122: The influence of gender and age on the incidence of recurrence and disease progression in patients with muscle-non-invasive bladder cancer, depending on the optimal application of intravesical immunotherapy of bacillus Calmette-Guérin

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¹Medical Faculty of Military Medical Academy, University of Defence, Dept. of Urology, Belgrade, Serbia, ²Hospital Dr Dragisa Misovic, Dept. of Urology, Belgrade, Serbia, ³Medical Faculty of Military Medical Academy, University of Defence, Dept. of Pathology, Belgrade, Serbia

INTRODUCTION & OBJECTIVES: The therapy with intravesical instillation of bacillus Calmette-Guérin (BCG) after transurethral resection of the tumor (TUR) is the gold standard of treatment of non-muscle invasive bladder cancer (NMIBC). The aim of our study was: to compare the incidence of tumor recurrence between the groups of patients (pts) who were underwent TUR + BCG therapy (group I) and a group of pts in whom TUR was the only therapy (group II). At the same time we want to examine whether these results differ depending on the sex and age of the pts.

MATERIAL & METHODS: Patients suffering from NIMBC, treated at our institution from 01.01.2007 until 01.03.2013, a total of 899, were included in this study. Two groups of patients were divided into subgroups of respondents male and female, age 60 years or younger and older than 60 years. Statistical analysis was performed using chi-square test and the Kolmogorov-Smirnov test.

RESULTS: In group I, there was a recurrence in 133 pts versus 75 pts in group II, it was a statistically high significant difference. If we analyze the frequency of recurrence concerning the formed subgroups: From our research it follows that if the frequency of recurrence is seen as the only parameter, considering all subjects, the lowest recurrence rate was in male subjects, aged 60 years and younger who have received BCG after TUR. After analyzing our results, we note the high statistical significance in the incidence of recurrence in younger than 60 years, depending on the response to therapy, and in those older than 60 years, the difference was on the level of statistical significance. This can be attributed to a certain degree of infravesical obstruction that is present in older men.

CONCLUSIONS: Our results indicate that, however, the fact that the sex and age of the patient may have a significant influence on the course and outcome of the disease, patients suffering of NMIBC, at least partly gained importance, because we clearly showed that, at least concerning our respondents, the disease has the most malignant and most aggressive behavior when present in males older than 60 years.

Eur Urol Suppl 2014; 13(7) e1486
S124: The evaluation of cajal cells and caveolin 1 levels at ureteropelvic junction obstruction

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INTRODUCTION & OBJECTIVES: To compare c-kit-positive interstitial cells of Cajal (ICC) and Caveolin 1 protein levels as a pacemaker and signaling molecules, between two groups of pediatric patients had ureteropelvic junction obstruction (UPJO) and had normal ureteropelvic junction (UPJ).

MATERIAL & METHODS: We evaluated the UPJ specimens of 45 pediatric patients operated between 2005–2012 retrospectively. A 37 patients had UPJO and performed dysmembered pyeloplasty were formed Group 1. Eight patients underwent nephrectomy by the other reasons (renal tumor, trauma etc) and had normal UPJ were accepted as Group 2. The specimens were examined immunohistochemically with CD117 and Caveolin-1. According to the total number of Cajal cells; 0-5 cells were accepted as few (1), 6-10 cells as moderate (2), and > 10 as many (3). According to the staining intensity of Caveolin-1 at muscle tissue, a subjective evaluation was made as; mild staining (1), moderate staining (2) and strong staining (3).

RESULTS: The mean value of ICC distribution was calculated 1.37 ± 0.54 in Group 1 and 2.13 ± 0.64 in Group 2; and the median value of ICC distribution was found 1 [1-3] in Group 1 and 2 [1-3] in Group 2 (p=0.003, p=0.008, respectively) (Table 1). Median values for the intensity of staining with Caveolin 1 were found 2 [1-3] in the Group 1, and 2.5 [2-3] in the Group 2 (p=0.025) (Table 2).

Table 1: Distribution of the Cajal cells in the ureteropelvic junction obstruction and control groups

<table>
<thead>
<tr>
<th>Density of Cajal Cells</th>
<th>UPJO (n, %)</th>
<th>Control (n, %)</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-5 cells (few)</td>
<td>24 (64.8%)</td>
<td>1 (12.5%)</td>
<td>p=0.008*</td>
</tr>
<tr>
<td>6-10 cells (moderate)</td>
<td>12 (32.4%)</td>
<td>5 (62.5%)</td>
<td>p=0.112</td>
</tr>
<tr>
<td>&gt;10 cells (many)</td>
<td>1 (2.7%)</td>
<td>2 (25%)</td>
<td>p=0.022*</td>
</tr>
</tbody>
</table>

Table 2: Distribution of the Cajal cells in the ureteropelvic junction obstruction and control groups

<table>
<thead>
<tr>
<th>Number of Cajal Cells</th>
<th>UPJO (n, %)</th>
<th>Control (n, %)</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean±SD</td>
<td>1,37 ± 0.54</td>
<td>2,13 ± 0.64</td>
<td>p=0.003*</td>
</tr>
<tr>
<td>Median (minimum-maximum)</td>
<td>1 [1-3]</td>
<td>2 [1-3]</td>
<td>p=0.008*</td>
</tr>
</tbody>
</table>
UPJO: ureteropelvic junction obstruction; SD: standard deviation; *p<0.05 were accepted as significant

Table 2: The intensity of staining with Caveolin 1 in the ureteropelvic junction obstruction and control groups.

<table>
<thead>
<tr>
<th>The intensity of staining with Caveolin 1</th>
<th>UPJO (n, %)</th>
<th>Control (n, %)</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>mild staining</td>
<td>15(40.5%)</td>
<td>-</td>
<td>p:0.027*</td>
</tr>
<tr>
<td>moderate staining</td>
<td>12(32.4%)</td>
<td>4(50%)</td>
<td>p:0.347</td>
</tr>
<tr>
<td>strong staining</td>
<td>10(27.1%)</td>
<td>4(50%)</td>
<td>p:0.203</td>
</tr>
</tbody>
</table>

Median (minimum-maximum) values for the intensity of staining
mild staining was accepted as (1)
moderate staining was accepted as (2)
strong staining was accepted as (3)

<table>
<thead>
<tr>
<th>Median (minimum-maximum) values for the intensity of staining</th>
<th>UPJO</th>
<th>Control</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 [1-3]</td>
<td>2.5</td>
<td></td>
<td>p:0.025*</td>
</tr>
</tbody>
</table>

CONCLUSIONS: A decrease in ICC and Caveolin 1 levels support that there may be a relationship between ICC and Caveolin 1 for signal transduction and peristaltis in urinary system.

Eur Urol Suppl 2014; 13(7) e1487
S126: Reconstruction of an amputated glans penis by using a buccal mucosal graft: Case report with a novel technique

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INTRODUCTION & OBJECTIVES: Penile amputation is a rare catastrophe and serious complication of circumcision. Reconstruction of the glans penis may be indicated following amputation. Our report discusses a novel technique for reconfiguration of an amputated glans penis after one year of a complicated circumcision.

MATERIAL & METHODS: Two years old male infant presented to us with glans penis amputation during circumcision one year ago. Parents complained of severe meatal stenosis with disfigurement of the penis. Penis length was 3 cm. Complete penile degloving was performed. The distal part of the remaining penis was prepared by removing of fibrous tissue. Buccal mucosal graft was applied to the distal part of the penis associated with meatotomy.

RESULTS: The use of buccal mucosal graft was successful, simple with accepted cosmetic and functional results for late reconfiguration of the glans penis after its amputation when penile size is suitable.

CONCLUSIONS:

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S127: Role of the urethral plate characters in the success of tubularized incised plate urethroplasty

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INTRODUCTION & OBJECTIVES: Evaluation of the urethral plate characters and its effect on the outcome of tubularized incised plate (TIP) urethroplasty.

MATERIAL & METHODS: Between 2009 and 2013, 100 children with primary anterior penile hypospadias underwent TIP urethroplasty. Urethral plates were categorized as flat, cleft, and deeply grooved. Postoperatively, patients were followed up for evaluation of meatal stenosis, fistula formation, glandular dehiscence at first, third, and sixth months. Patients were followed up for urethral calibration by urethral sound 8Fr at third and six months follow up. Data were statistically analyzed using Epi info program to correlate between the width, plate shape, and complications.

RESULTS: Mean age at surgery was 4.3 years. Patients were followed up for an average period of 6.4 months. Location of the meatus was reported as coronal in 46, subcoronal in 50 and anterior penile in four cases. Urethral plate characters were flat in 26 cases, cleft in 52, and deeply grooved in 22. Urethral plate width was > 8 mm in 74 cases and < 8 mm in 26. Patients with urethral plate < 8 mm had a statistically significant higher fistula rate (P value = 0.004) and failed 8 Fr calibrations in 26.9% (P value = 0.01) compared to the patients with urethral plate > 8 mm. In addition, we also found a higher fistula rate and failed 8 Fr calibrations in flat urethral plate.

CONCLUSIONS: An adequate urethral plate width (> 8mm) is essential for successful TIP repair. Lower success rates with flat plates may need buccal mucosal augmentation to improve the results.

Eur Urol Suppl 2014; 13(7) e1489
A case of unilateral megaloureter, multicystic renal dysplasia and ectopic ureter in a female neonate

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INTRODUCTION & OBJECTIVES: The term of ectopic ureter describes an ureter with the orifice located at the bladder neck, in the urethra, or outside the urinary tract. There is a fundamental difference between the sexes. In boys, the ectopic orifice is never below the external sphincter. In girls, the ureteral orifice may be located [1]: in the urethra, from the bladder neck to the meatus (35%), in the vaginal vestibule (34%), in the vagina (25%), in the uterus and Fallopian tube (6%). Ectopic ureter is more common in female patients (male to female ratio, 1:5). Some remain asymptomatic, therefore, the true incidence is difficult to determine[2]. Most of the ectopic megaureters are diagnosed primarily by ultrasonography. In some cases, clinical symptoms can lead to diagnosis: In neonates: dribbling of urine, pyuria, and acute pyelonephritis. In young girls: permanent urinary incontinence besides normal voiding, or significant vaginal discharge as the equivalent of incontinence; an ectopic orifice may be found in the meatal region [3]. According to performed USG in the antenatal period, a 3150 g. miad born by cesarean section baby girl we determined hydronephrosis of left kidney. At the postnatal term USG report hydronephrosis in the left kidney was confirmed. According to abdominal MRI left kidney was located ptotic. There was no parenkyma in the left kidney. Multiple cystic formations have been seen completely filling to left kidney (multicystic dysplastic kidney). Left ureter have been seen extremely dilated and left ureter terminated into the urethra. (megaureter and ectopic termination).

MATERIAL & METHODS:

RESULTS:

Frontal sections of ectopic ureter termination

CONCLUSIONS: Ectopic ureter management includes conservative approach, endoscopic decompression, partial nephroureterectomy, or complete primary reconstruction. Choice of treatment will depend on: clinical status of the patient (e.g., urosepsis), patient age, function of the upper pole, presence of reflux or obstruction of the ipsilateral or contralateral ureter, presence of bladder neck obstruction caused by ureterocele, intravesical or ectopic ureterocele, and parents’ and surgeon’s preferences[4]. Many centers are coming up with minimally invasive techniques, but again experience with this rare group of diseases is limited [5].

Eur Urol Suppl 2014; 13(7) e1490
S129: Immunohistochemical examination of cytologic structures in pelviureteric junction obstruction

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**INTRODUCTION & OBJECTIVES:** Various functional and structural studies of interstitial Cajal cells (ICCs) were reported in the pathophysiology of pelviureteric junction obstruction (PUJO). We aimed to evaluate these cells’ density and distribution changes. Besides, we assessed the cellular and neuronal density changes in PUJO.

**MATERIAL & METHODS:** In our institute, the PUJ sections of 30 cases, who underwent dismembered pyeloplasty with the diagnosis of intrinsic PUJO between 2006-2013 and PUJ sections of 10 control cases, who underwent radical nephrectomy were stained with Haematoxylin-Eosin (H-E) and Masson’s Tricrome. CD117 (for ICCs), S100 protein and synaptophysin (for neuronal structures) immunohistochemical staining were performed with all sections. At the same time, fibrosis, smooth muscle cell (SMC) hypertrophy/atrophy and chronic inflammation were recorded in the examination.

**RESULTS:** CD117 immun positive cell density around the circular muscle layer was significantly decreased (p<0.05) in PUJO group (Table 1). Besides, there was no significant difference in the density of S100 protein and synaptophysin positive cells between two groups. Also in stenotic PUJ sections, the density of ICCs were significantly increased in patients younger 18 years old than cases older 18 (p <0.05) (Table 2). SMC hypertrophy and chronic inflammation were the dominant histologic changes in PUJO.

<table>
<thead>
<tr>
<th></th>
<th>CD117</th>
<th>S100 protein</th>
<th>Synaptophysin</th>
</tr>
</thead>
<tbody>
<tr>
<td>PUJO group</td>
<td>median</td>
<td>min-max</td>
<td>p</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>0-18</td>
<td>0.03</td>
</tr>
<tr>
<td>Control group</td>
<td>7</td>
<td>0-20</td>
<td>0.12</td>
</tr>
</tbody>
</table>

|                                | CD117   | S100 protein | Synaptophysin |
|                                | median  | min-max      | p             |
|                                 | 17      | 2-50         | 0.22          |
|                                 | 2.5     | 0-48         | 0.12          |

|                                | CD117   | S100 protein | Synaptophysin |
|                                | median  | min-max      | p             |
|                                 | 11.5    | 0-21         | 0             |
|                                 | 0.0     | 0-6          | 0.12          |

**CONCLUSIONS:** ICCs may play a more important role than ureteral innervation on the pyeloureteral peristalsis. The activity and effects of these structures are going to be seen more clearly in neurophysiologic studies to be carried on ureteral peristalsis. Thus, PUJO will be available to be treated by pharmacological treatment options instead of surgery.

Eur Urol Suppl 2014; 13(7) e1491
S130: Sutureless circumcision with Winkelmann clamp

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INTRODUCTION & OBJECTIVES: The outcome of sutureless circumcision at our institution was analyzed.

MATERIAL & METHODS: Exclusion criteria: Family history of bleeding disorder, congenital penile abnormalities, bodyweight less than 2500 grams. Sutureless circumcision was performed with Winkelman clamp after marking the incision lines and applying the clamp for 8 minutes for hemostasis, under local anesthesia with pure lidocaine in babies younger than 2 months old. Additional hemostasis was provided with electrocautery or silver nitrate at the phrenulum whenever needed. Postoperative care was performed with antibiotic ophtalmic ointment and pure Vaseline for 7 days.

RESULTS: Cosmetic outcome was good in all cases. No early or late bleeding, infection, and meatal stenosis occurred. Only slight mucosal adhesions to glanular edge were detected, which were easily freed. Adhesions were less frequent in cases younger than 28 days old. One penis became concealed at late follow-up. Phrenulum was damaged variably in all cases, only 1 required suture re-approximation at the phrenular site; but glans healed perfectly in all of them.

<table>
<thead>
<tr>
<th>Age &lt;28 days</th>
<th>Age &gt;28 days</th>
</tr>
</thead>
<tbody>
<tr>
<td>n</td>
<td>48</td>
</tr>
<tr>
<td>Median age</td>
<td>9</td>
</tr>
<tr>
<td>Mean age</td>
<td>11.69</td>
</tr>
<tr>
<td>Mean Early followup (n, days)</td>
<td>35 cases, 10.8 days</td>
</tr>
<tr>
<td>Mean Late followup (n, days)</td>
<td>10 cases, 182.5 days</td>
</tr>
<tr>
<td>Early adhesion (%)</td>
<td>14.3%</td>
</tr>
<tr>
<td>Late adhesion (%)</td>
<td>20%</td>
</tr>
</tbody>
</table>

CONCLUSIONS: Sutureless circumcision with Winkelmann clamp is a safe procedure, better within first 28 days of life. Late adhesions might occur and long follow-up is recommended. Late adhesions might be due to weight gain and/or loose Dartos layer, and might be prevented with periodic penile skin retraction by the parents.

Eur Urol Suppl 2014; 13(7) e1492
**S133: Non-urethral complications after hypospadias repair**

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**INTRODUCTION & OBJECTIVES:** Surgical complications after hypospadias repair can be classified in two groups: complications related to the urethra and non-urethral complications. Although urethral complications are more common and have been extensively analyzed, non-urethral surgical complications carry a risk of repeated surgery and may lead to severe functional and psychological disorders. The most common non-urethral complications after hypospadias repair are: glans deformity, residual curvature and trapped penis due to deficiency of penile skin. Aims of this study are to present treatment of these complications and to highlight its impact on patients’ life.

**MATERIAL & METHODS:** From January 2003 to July 2013 seventy two patients, aged 4 to 39 years (median 19) underwent surgical repair of non-urethral complications after hypospadias repair. The most common complications included: glans deformity (29), residual curvature (41) and trapped penis (25). Some of the patients had two or more complications at the same time. Radical approach was used to correct all deformities and to achieve satisfactory outcome. Glans deformity was repaired in 23 patients by creation of conically shaped glans after making of wide glans wings, while in 6 cases “double face” skin flap was used to enlarge small and deformed glans. Residual curvature was repaired by tunical plication in all cases, while in 15 cases additional urethral reconstruction was needed. Trapped penis was a result of penile skin deficiency due to inappropriate surgical treatment. Quality and elasticity of remaining penile skin was reevaluated before reconstruction, with special attention to impaired blood supply. Vascularized genital skin flaps or free skin grafts were applied for complete covering of erected penile body.

**RESULTS:** Follow up was 12 to 138 months (median 52). Eight patients (11%) required additional surgical treatment for successful repair of non-urethral complication: five patients underwent repeated penile skin reconstruction due to severe scar formation and three patients underwent repeated correction of the penile curvature due to its late onset. Five patients underwent staged urethral reconstruction as it was initiated during residual curvature correction.

**CONCLUSIONS:** Non-urethral complications after hypospadias repair may lead to complete anatomical and psychological inability for sexual intercourse. Therefore, long-term follow-up related to all aspects is considered important for a successful outcome of hypospadias repair. In addition to surgeons’ or parents’ judgement, independent evaluation of patient satisfaction is warranted for establishing legitimate results of the treatment.

*Eur Urol Suppl 2014; 13(7) e1493*
S134: Treatment alternatives of urinary system stones in preschool aged children; results of 616 cases

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INTRODUCTION & OBJECTIVES: The present study aims to provide comparative results of stone removal procedures in preschool aged patients who were diagnosed with urinary system stone disease.

MATERIAL & METHODS: The retrospective data of 616 pediatric preschool patients who were admitted to our clinic with urinary system stone disease between January 2009 and July 2013 were collected. Patients with isolated bladder stones were excluded from the study. Group ESWL: extracorporeal shock wave lithotripsy, Group URS: ureterorenoscopy, Group PNL: percutaneous nephrolithotomy, Group micro-PNL: micro percutaneous nephrolithotomy, and Group OS: open surgery.

RESULTS: Six hundred sixteen preschool patients (336 males and 280 females) with a mean age of 47.8±17.9 months, who were referred to the clinic for urinary system stone disease treatment, were included in this study. Three hundred seventy patients (84%) underwent ESWL, 10 patients (9.3%) underwent PNL, 10 patients (2.2%) underwent micro-PNL, and 18 patients (4.15%) underwent open surgery. One hundred seventy-five patients with ureteral stone underwent URS procedure. The mean age was 51±17 months in Group ESWL, 48±18.7 months in Group URS, 48±13.9 months in Group PNL, 17±8 months in Group micro-PNL and 36±14.8 months in Group OS. Success rates in groups are ESWL 68%, URS 66%, PNL 85%, Micro-PNL 100%, OS 94% respectively.

<table>
<thead>
<tr>
<th></th>
<th>Group ESWL (n = 370)</th>
<th>Group URS (n = 175)</th>
<th>Group PNL (n = 41)</th>
<th>Group Micro-PNL (n = 12)</th>
<th>Group OS (n = 18)</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sex (Male/Female), n</td>
<td>188/182</td>
<td>101/74</td>
<td>29/12</td>
<td>7/5</td>
<td>10/8</td>
<td>0.126</td>
</tr>
<tr>
<td>Age (months)</td>
<td>51 ± 17.0</td>
<td>48 ± 18.7</td>
<td>48 ± 13.9</td>
<td>17 ± 8.0</td>
<td>36 ± 14.8</td>
<td>0.001</td>
</tr>
<tr>
<td>Stone-size (mm²)</td>
<td>89.4 ± 38.1</td>
<td>33.5 ± 26.4</td>
<td>366.4 ± 107.9</td>
<td>71.2 ± 14.4</td>
<td>563.6 ± 148.0</td>
<td>0.001</td>
</tr>
<tr>
<td>Hidronephrosis n (%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No/ mild</td>
<td>302 (81.6)</td>
<td>120 (68.5)</td>
<td>21 (51.2)</td>
<td>9 (75)</td>
<td>6 (33.3)</td>
<td></td>
</tr>
<tr>
<td>Moderate/ Gross</td>
<td>68 (18.3)</td>
<td>55 (31.4)</td>
<td>20 (48.7)</td>
<td>3 (25)</td>
<td>12 (66.6)</td>
<td></td>
</tr>
</tbody>
</table>

Table 2. Comparison of operative and postoperative data

<table>
<thead>
<tr>
<th></th>
<th>ESWL</th>
<th>URS</th>
<th>PNL</th>
<th>Micro-PNL</th>
<th>OS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hospitalizasyon (Day)</td>
<td>-</td>
<td>1.26±0.25</td>
<td>2.33±0.48</td>
<td>1.8±0.71</td>
<td>1.8±0.71</td>
</tr>
<tr>
<td>Blood transfusion (n)</td>
<td>-</td>
<td>-</td>
<td>5 (12.1%)</td>
<td>-</td>
<td>7 (38.8%)</td>
</tr>
<tr>
<td>JJ stent (n)</td>
<td>51 (13.7%)</td>
<td>64 (36.5%)</td>
<td>41 (100%)</td>
<td>12 (100%)</td>
<td>14 (77.7%)</td>
</tr>
<tr>
<td>Complication</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Condition</td>
<td>Value 1</td>
<td>Value 2</td>
<td>Value 3</td>
<td>Value 4</td>
<td>Value 5</td>
</tr>
<tr>
<td>-------------------------</td>
<td>---------</td>
<td>---------</td>
<td>---------</td>
<td>---------</td>
<td>---------</td>
</tr>
<tr>
<td>Fever</td>
<td>27(7.29%)</td>
<td>30(17.1%)</td>
<td>3(7.3%)</td>
<td>1(8.3%)</td>
<td>2(11.1%)</td>
</tr>
<tr>
<td>Ureterallaseration</td>
<td>-</td>
<td>8(4.5%)</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Leakage from nephrostomy</td>
<td>-</td>
<td>-</td>
<td>3(7.3%)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Sepsis</td>
<td>3(0.81%)</td>
<td>6(3.4%)</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Stone Free (%)</td>
<td>68</td>
<td>66</td>
<td>85</td>
<td>100</td>
<td>94</td>
</tr>
</tbody>
</table>

**CONCLUSIONS:** ESWL, PNL, micro-perc and ureteroscopic lithotripsy continue to remain popular as minimally invasive methods in the clinical practice, whereas open surgery remains as an option in only a minor, selected patient group.

Eur Urol Suppl 2014; 13(7) e1494
**INTRODUCTION & OBJECTIVES:** “Buried” penis is a comparatively rare and poorly known congenital condition, presented by a normally developed, but a partially or totally hidden penis, mostly due to poor fixation of the skin to the penile base. This causes cosmetic, psychological and medical problems to the growing child. Our aim was to present the surgical technique used to correct this malformation, and to examine the initial results of its application.

**MATERIAL & METHODS:** A total of 15 children with “buried” penis at a mean age of 3.5 years were diagnosed and surgically treated in our clinic within a 4-year period /2010 – 2014/. By a midline ventral incision and penile “degloving”, tunica Dartos was approached. The redundant part of the tunica was liberated, divided and excised. The key moment of the surgical technique was the “anchoring” of the two flaps of tunica Dartos at the penile base, used to avoid repeat concealing of the penis. If necessary, a standard circumcision was performed in addition. Surgery was completed by a penile block to reduce the postoperative pain, followed by a compressive dressing of the penis.

**RESULTS:** All operations were done without any perioperative complications, within a mean operative time of 80 min /range, 45 – 105 min/. All children were discharged from the hospital on the very next day. We observed a small hematoma that occurred in one case after removal of the compressive dressing, but it spontaneously resolved and did not require surgical revision. The cosmetic results were assessed on the first month after the operation. They were classified based on the satisfaction of the parents, the patient and the surgeon, as: excellent /73.3%/; good /20.0%/; satisfactory /6.7%/ and poor /0%/.

**CONCLUSIONS:** The technique offered for surgical correction of “buried” penis is comparatively easy and simple to perform. It guarantees excellent functional and cosmetic results, with a minimal risk of complications.

Eur Urol Suppl 2014; 13(7) e1495
S137: A modified technique of nerve sparing reduction clitoroplasty

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INTRODUCTION & OBJECTIVES: Clitoromegaly is the most prominent manifestation of congenital virilizing adrenal hyperplasia and other disorders of sexual development. Even nowadays, the surgical reconstruction of the masculinized clitoris is a matter of considerable controversy. Several techniques had been proposed, varying from total clitoridectomy to recession and relocation of the enlarged clitoris. The aim of this study was to present our modified nerve sparing technique of reduction clitoroplasty, and to evaluate the functional results, by assessing the viability and the sensation of the reconstructed clitoris.

MATERIAL & METHODS: A 5-year-old girl presented to our clinic with a virilizing form of congenital adrenal hyperplasia that had been diagnosed immediately after birth. The child had a significantly enlarged (4.5 cm long and 2.0 cm wide) clitoris; thick, pigmented, scrotum-like labia majora, and a well formed vagina. After subcoronal degloving of the enlarged clitoris, the corporeal bodies were dissected and resected, by sparing the dorsal neurovascular bundle and the glans. The latter was additionally reduced in size for better cosmetics. The skin, covering the clitoris, was divided longitudinally and used for reconstruction of labia minora. The evaluation of the postoperative results included an assessment of overall cosmetic appearance of the external genitalia; the capillary perfusion test (CPT), and the clitoral sensitivity test (CST), assessed on a 6-degree /0 to 5/ visual analogue scale.

RESULTS: Surgery and follow-up ran smoothly, without any peri- and postoperative complications. The first follow-up visit (1 month after the operation) showed that an excellent cosmetic result had been achieved. CPT performed on the 3rd month after surgery showed a normal clitoral reperfusion as compared with the nail bed testing - 3 sec. The patient reported degree of sensation at the labia minora site was 3, and at the clitoris site – 4.

CONCLUSIONS: The suggested modified technique of nerve sparing reduction clitoroplasty seems to be a safe and reliable solution to correct an enlarged clitoris. The early results showed that the viability and the sensation of the reconstructed clitoris had been well preserved. In order to document the long-term sexual function of the patient, however, a continued, long-term follow-up is sorely needed.

Eur Urol Suppl 2014; 13(7) e1496
**INTRODUCTION & OBJECTIVES:** Wrong acquired voiding habits during toilet training period, lead to different urination disorders in children. Clinical presentation includes enuresis, diurnal incontinence, dysuria or recurrent urinary tract infections. Biofeedback therapy is a simple method of training that makes possible the evaluation of physiological behavioral of pelvic floor muscles. We evaluated the first 21 patients that have undergone this therapy in our hospital from April 2014 until July 2014.

**MATERIAL & METHODS:** 21 patients were evaluated (11 boys and 10 girls), from 6 to 22 years old (mean age 12). There were different diagnoses: 17 had nocturnal enuresis (5 of them accompanied with diurnal incontinence, 1 with urge incontinence and 1 accompanied with dysfunctional voiding), 1 postoperative posterior urethral valve, 1 spina bifida occulta, 1 constipation and 1 urinary dysfunction with vesicoureteral reflux. The diagnosis was made with IPSS, uroflowmetry, VCUG and ultrasound. 7 of the patients have used anticholinergic therapy before without success.

**RESULTS:** Some patients unfortunately discontinued the training program after the second week mostly because of the length to hospital. Although most of the patients area still continuing the treatment the average of IPSS in these patients has changed from 18,4 before training in 7 after the training. The average of residual urine before treatment was 46,58ml and after treatment 20ml. Patients have undergone biofeedback without using medical therapy. The improvement rate was significant in enuresis patients after two months, evaluated with IPSS, uroflowmetry pattern and decreased residual urine. In urinary dysfunction cases electrical stimulation was combined with biofeedback therapy. Also there was a improvement in vesicourethral reflux and they are still continuing the therapy. In spina bifida occulta there isn’t still no improvement but the patient hasn’t only have the therapy for three weeks.

**CONCLUSIONS:** Biofeedback therapy is a simple method that can be used effectively in the treatment of many urinary disorders in neurologically normal patients. For a better evaluation the therapy must continue for at least 6 months.

Eur Urol Suppl 2014; 13(7) e1497
S140: Prostate volume predicts high grade prostate cancer

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INTRODUCTION & OBJECTIVES: The relationship between smaller prostate volume (PV) and high grade prostate carcinoma (HGPCA) has been an interesting issue after the publication of PCPT (N. Eng. J. Med. 349:215, 2003). Currently, PV is still a hot topic in the studies for prostate cancer (PCa). We aimed to assess the relationship between PV and HGPCA in our radical retropubic prostatectomy (RRP) cohort.

MATERIAL & METHODS: In this study, 237 consecutive patients who had RRP in a single institution between 2005-2013 were included. Age, total PSA (tPSA), PV at the transrectal ultrasound guided biopsy (TRUS-Bx) (Clinical PV), Gleason sum (GS) at the TRUS-Bx (Clinical GS), PV at the permanent pathological specimen (Pathological PV), GS at the permanent pathological specimen (Pathological GS) and poor pathological findings [positive surgical margin (SM), extraprostatic extension (ECE), seminal vesicle invasion (SVI), lymph node invasion (LNI)] were noted. Only frank prostate adenocarcinomas were included in the study. All biopsies and permanent pathologies were evaluated by the same pathologist (BM) according to the 2005 ISUP Consensus Conference on Gleason Grading of Prostatic Carcinoma criteria. Patients were categorized according to GS as

RESULTS: Patients demographics, clinical and pathological findings are summarised in Table 1. Significant correlation was found between Clinical PV and Pathological PV (r=0.67, p<0.0001). While 27.8% (66/237) of Clinical GSs were upgraded in permanent pathology, 29.5% (70/237) of them were downgraded. There was no significant relationship between Clinical PV and Clinical HGPCA (OR= 1.02 (0.93-1.12), p=0.599). However, Clinical PV significantly correlated with Pathological HGPCA (OR= 1.16 (1.05-1.28), p=0.003). Univariate logistic regression (LR) analysis between Pathological PV and clinical and pathological findings were summarised in Table 2. Pathological PV significantly correlated with pathological HGPCA (p<0.0001) and only with ECE (p=0.027) among poor pathologic findings.

Table 1. Patients demographics and clinical and pathological findings.

<table>
<thead>
<tr>
<th></th>
<th>63.14(±6.24)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Median age (±sd): year</td>
<td></td>
</tr>
<tr>
<td>Median tPSA (IQR*): ng/mL</td>
<td>8.30 (5.59-12.92)</td>
</tr>
<tr>
<td>Median Clinical PV (IQR): cc</td>
<td>38.00 (28.90-57.00)</td>
</tr>
<tr>
<td>Median Pathological PV(IQR):gm</td>
<td>52.00 (40.00-70.50)</td>
</tr>
<tr>
<td>Clinical GS (n/n)</td>
<td>&lt;7</td>
</tr>
<tr>
<td></td>
<td>≥7</td>
</tr>
<tr>
<td>Pathological GS (n/n)</td>
<td>&lt;7</td>
</tr>
<tr>
<td></td>
<td>≥7</td>
</tr>
<tr>
<td>Poor Pathological Findings (n/n)</td>
<td>positive SM 18.6% (44/237)</td>
</tr>
<tr>
<td></td>
<td>ECE 33.8% (80/237)</td>
</tr>
<tr>
<td></td>
<td>SVI 10.5% (25/237)</td>
</tr>
</tbody>
</table>
Table 2. Univariate logistic regression analyses of Pathological PV/10 (independent variable) and clinical and pathological findings (dependent variables).

<table>
<thead>
<tr>
<th>Univariate LR</th>
<th>Pathology PV/10</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pathology PV/10</td>
</tr>
<tr>
<td></td>
<td>OR ( %95 CI)</td>
</tr>
<tr>
<td>Clinical HGPCa</td>
<td>0.99 (0.98-1.00)</td>
</tr>
<tr>
<td>Pathological HGPCa</td>
<td>1.21 (1.09-1.34)</td>
</tr>
<tr>
<td>Positive SM</td>
<td>1.02 (0.90-1.15)</td>
</tr>
<tr>
<td>ECE</td>
<td>1.13 (1.01-1.27)</td>
</tr>
<tr>
<td>SVI</td>
<td>1.09 (0.92-1.31)</td>
</tr>
<tr>
<td>LNI</td>
<td>1.10 (0.86-1.40)</td>
</tr>
</tbody>
</table>

**CONCLUSIONS:** There was a significant relationship between HGPCa and smaller Pathological PVs. Smaller PVs also associated with increased ECE. Clinical PV was not significantly related with clinical HGPCa, while clinical PV was significantly associated with pathological HGPCa.

Eur Urol Suppl 2014; 13(7) e1498
S141: Prospective study of patient’s educational level as a risk factor in the diagnosis of prostate cancer

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Aristotle University of Thessaloniki, Dept. of Urology, Thessaloniki, Greece

INTRODUCTION & OBJECTIVES: There are published data suggesting that men of higher educational level seem to be more sensitive concerning PSA screening and at the same time to understand the value of prevention and early detection of prostate cancer. The objective of this prospective study is to evaluate patient’s educational level as a risk factor in the diagnosis of prostate cancer, in a homogenous population.

MATERIAL & METHODS: All patients attending the outpatient clinic from August 2013 to April 2014 with an indication for prostate biopsy were included in the study. They were enrolled into 3 groups of educational level according to their educational years. In group A were enrolled patients with ≤6 educational years, in group B patients with more than 6 and ≤ 12 educational years and in group C with more than 12 educational years. All patients underwent transrectal ultrasound (TRUS) guided biopsy and PSA level, age and prostate volume were recorded. Patients with a positive diagnosis of prostate cancer from the biopsy were further categorized into three risk group using D’amico criteria (low, intermediate, high risk prostate cancer patients).

RESULTS: From a total of 323 patients, 148 were enrolled in group A, 122 in group B and 53 in group C according to their educational level. From the TRUS biopsy 129/323 (39.9%) were diagnosed with prostate cancer. The percentage of prostate cancer diagnosis did not differ between the groups (A: 41.2% vs B: 35.2% vs C: 47.2%, Pearson chi-square p=0.305). However, in patients with lower educational level group, the percentage of high risk prostate cancer was significant higher (A: 41% vs B: 20.9% vs C: 12%, Pearson chi-square p<0.0001) with a linear trend (p<0.0001) the higher the educational level the lower the percentage of high risk prostate cancer. In logistic regression model, patients lower educational level (group A) was an independent risk factor (adjusted for age and PSA) to find high risk prostate cancer (D’amico criteria) with an Odds Ratio (OR)=5.903 (1.302 - 26.773, 95%CI), p=0.021.

CONCLUSIONS: Lower educational level seems to be an independent risk factor for finding high risk prostate cancer in patients that undergo TRUS guided prostate biopsy. Larger population studies are needed to determine the causes of probably delayed diagnosis of prostate cancer in patients with lower educational level.

Eur Urol Suppl 2014; 13(7) e1499
S142: PSA density as a predictive factor for the detection of higher risk prostate cancer patients

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Aristotle University of Thessaloniki, Dept. of Urology, Thessaloniki, Greece

INTRODUCTION & OBJECTIVES: Transrectal ultrasound (TRUS) to evaluate prostate size and calculate PSA density (total PSA / prostate size) can improve the specificity of total PSA in predicting prostate cancer. The objective of this study is to evaluate PSA density as a predictive factor for the detection of higher risk prostate cancer in patients that undergo TRUS guided prostate biopsy.

MATERIAL & METHODS: There were included 319 consecutive patients in the study that underwent TRUS guided prostate biopsy in our outpatient clinic. In all the patients prostate size (Vpro) was measured with TRUS and total PSA (PSAt), the result of digital rectal examination (DRE) and the detection of any subechoic lesion in TRUS were recorded. PSA density (PSAD) was also calculated. For the subanalysis, we would include patients with PSA values between the lowest value that prostate cancer was detected and the highest value without prostate cancer detection.

RESULTS: From the 319 patients, prostate cancer was detected in 126 (39.5%) (CaP+) and in 193 (60.5%) no prostate cancer was found (CaP-). The lowest PSA value that prostate cancer was detected was 3.03 ng/mL and the highest value without prostate cancer detection was 42.6 ng/mL. From the patients (291) that had a PSA value between 3.03 and 42.6ng/mL, 109 (37.5%) were CaP+ and 182 (62.5%) were CaP-. The mean value of PSA was not statistical different between these two groups (CaP+: 10.63±7.35 vs CaP-: 9.30±6.57, p=0.080). However, PSAD was significant different between the groups (CaP+: 0.34±0.52 vs CaP-: 0.14±0.11, p<0.0001), as well as positive DRE (CaP+: 40.2% vs CaP-: 23.6%, p=0.005) and the detection of subechoic lesion (CaP+: 46.9% vs CaP-: 29.4%, p=0.005). Further analysing prostate cancer patients (CaP+), they were categorized into three risk groups according to D’amico criteria (low, intermediate, high risk) and PSAD was significant different between these groups (One way ANOVA, p<0.0001) with positive linear trend (p<0.0001). In Logistic Regression model, adjusted for age, positive DRE and detection of subechoic lesion, PSAD was an independent risk factor for detection of higher risk prostate cancer (OR: 1.58(1.47-2.39), p<0.0001).

CONCLUSIONS: Calculating PSA density is a useful predictive factor not only for prostate cancer detection but also for predicting the detection of higher risk prostate cancers in patients that undergo TRUS prostate biopsy.

Eur Urol Suppl 2014; 13(7) e1500
Evaluation of the efficacy and safety of paroxetine for the treatment of hot flashes in prostate cancer patients under androgen deprivation therapy with LHRH antagonist

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INTRODUCTION & OBJECTIVES: Hot flashes (HF) are a common adverse event of androgen deprivation therapy in prostate cancer patients, affecting their quality of life. Recently, U.S. FDA approved low dose paroxetine, an antidepressant drug of the selective serotonin reuptake inhibitor (SSRI) type, for the treatment of moderate-to-severe HFs associated with menopause. The objective of this study is to evaluate the efficacy and safety of paroxetine 10mg for the treatment of HFs in prostate cancer patients under androgen deprivation therapy with the LHRH antagonist degarelix.

MATERIAL & METHODS: Our population study consisted of 121 prostate cancer patients treated with degarelix. Seventy eight out of them (64%) reported at least one episode of HF per day. Finally only 45/78 (58%) accepted to enter the study, while the rest 33/78 (42%) denied to participate due to low bothersome of the HFs. They were randomised into two groups: Group A (23/45) received paroxetine 10mg and Group B (22/45) received placebo once daily for 8 weeks. The episodes of Hot flashes were recorded using a 5-day self reported diary at the beginning, at 4th and 8th week. In the diary the patients were asked to record the number of HFs per day and also the severity of each episode (1=mild, 2=moderate, 3=severe). Finally, a hot flashes index (HFI) (frequency x severity) was calculated for each diary.

RESULTS: The mean value of HFI at the beginning of the study did not differ between the groups (A: 5.67±1.24 vs B: 5.41±1.44, t test p=0.521). At both the 4th and 8th week, group A reported significantly lower HFI compared with group B (4th Week: A: 3.49±0.77 vs B: 4.08±1.08, p=0.042 / 8th Week: A: 3.33±0.73 vs B: 4.03±1.07, p=0.014). No serious adverse event was reported and no patient discontinued the treatment.

CONCLUSIONS: Paroxetine 10mg seems to quickly reduce the frequency and severity of HF in prostate cancer patients under androgen deprivation therapy with degarelix, while at the same time it is a safe and well tolerated treatment. Interestingly, 42% of our study patients refused to enter the study, due to low bothersome from HF. Further larger studies are needed to fully evaluate the efficacy and safety of paroxetine and other SSRIs for the treatment of HF in prostate cancer patients.

Eur Urol Suppl 2014; 13(7) e1501
S147: Efficacy on testosterone levels of triptorelin pamoate 11.25 mg administered subcutaneously every 3 months in patients with locally advanced or metastatic prostate cancer

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INTRODUCTION & OBJECTIVES: For some patients, subcutaneous (SC) is preferred to intramuscular (IM) administration. Therefore the efficacy of the IM formulation of triptorelin pamoate was assessed when administered by the SC route.

MATERIAL & METHODS: In this open-label, single-arm, phase III study, adult men with locally advanced or metastatic prostate cancer and serum testosterone (T) level >125 ng/dl were treated with triptorelin pamoate 11.25 mg given by the SC route on Days 1 and 92. The co-primary efficacy endpoints were the proportions of patients with a castration level of T (<50 ng/dl) on Day 29 and still castrated on Day 183 (<80% and <85%, respectively, were considered undesirable). Secondary endpoints included PSA level and safety measures. The proportion of patients with a T level <20 ng/dl was studied in an exploratory manner.

RESULTS: The primary objective of the study was met; 123/126 patients (97.6% [95% CI: 93.2-99.5]) castrated on Day 29, and of these, 115/119 patients (96.6% [91.6-99.1]) maintained castration on Day 183. The probability of being castrated after 1 month and to remain castrated for up to 6 months was 96% [0.92-0.99]. Median T levels decreased to 14.7 ng/dl and 9.4 ng/dl on Days 29 and 57, respectively. T values remained within this range until the end of the study. The proportion of patients with a T level <20 ng/dl is shown in the Table.

<table>
<thead>
<tr>
<th>Timepoint</th>
<th>Proportion with T &lt;20 ng/dl (ITT population) % [95% CI*]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Day 29</td>
<td>77.7 [68.4-85.3]</td>
</tr>
<tr>
<td>Day 57</td>
<td>95.7 [90.1-98.6]</td>
</tr>
<tr>
<td>Day 92</td>
<td>95.9 [90.6-98.6]</td>
</tr>
<tr>
<td>Day 120</td>
<td>92.6 [86.3-96.5]</td>
</tr>
<tr>
<td>Day 148</td>
<td>92.6 [86.3-96.5]</td>
</tr>
<tr>
<td>Day 183</td>
<td>90.8 [84.2-95.3]</td>
</tr>
</tbody>
</table>

* Two-sided 95% confidence interval

The probability of maintaining a T level <20 ng/dl up to Day 183 was 90% [0.85-0.95] in the ITT
population. Median PSA levels were reduced by 64.2% and 96.0% on Day 29 and at the end of the study, respectively. The safety profile of triptorelin administered by the SC route was similar to the known safety profile of triptorelin administered by the IM route.

**CONCLUSIONS:** Triptorelin pamoate 11.25 mg administered by the SC route every 3 months achieves castration levels of T in >95% of men after 1 month and this is maintained up to 6 months. T levels were <20 ng/dl in 77.7% and 95.7% of patients on Days 29 and 57, respectively.

Eur Urol Suppl 2014; 13(7) e1502
S148: The role of lipids in prostate cancer tissue

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INTRODUCTION & OBJECTIVES: The patients with metabolic syndrome have more aggressive prostate cancer. One of the criteria of metabolic syndrome is lipids disorders. The normal glands of prostate do not contain the lipids, the lipids profile of prostate cancer is not known. Our aim was to study the histochemical characteristic of the prostate cancer tissue.

MATERIAL & METHODS: The staining with Sudan III of the frozen prostate biopsy specimens was used for detection lipids in the tissue: 15 specimens with benign prostatic pathology, 5 with high grade PIN, 3 with ASAP, 10 specimens of the patients with clinically latent prostate cancer and Gleason 6, 15 specimens of the patients with aggressive prostate cancer and Gleason ≥ 8 and 5 specimens of the castrate resistance prostate cancer (CRPC).

RESULTS: The lipids do not detect in the prostate glands with benign changes in all cases, the focal positive staining insignificant intensity was in samples with high grade PIN and ASAP. The insignificant focal concentration of lipids in the tumor glands was detected in patients with latent prostate cancer. The significant diffuse staining of lipids in tumor cells without staining in the stroma there was in patients with aggressive prostate cancer in all 15 cases. Same histochemical staining was detected in all specimens of the CRPC.

CONCLUSIONS: The glands of the aggressive prostate cancer and CRPC contain high level of lipids in the tumor cells. It may be one of the causes of the more aggressive prostate cancer in patients with metabolic disorders.

Eur Urol Suppl 2014; 13(7) e1503
Perineural invasion in biopsy specimens is associated with increased bone metastases in high risk prostate cancer

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INTRODUCTION & OBJECTIVES: We aimed to evaluate the relationship between perineural invasion (PNI) and bone metastasis in prostate cancer (PCa), because we could not find any study in the literature examining this relationship.

MATERIAL & METHODS: We retrospectively reviewed the data of 443 PCa patients who had whole-body bone scan (WBBS) between 2008-2014. We recorded the age, tPSA prior to biopsy, Gleason sum (GS) and PNI at transrectal ultrasound guided biopsy (TRUS-Bx), and clinical T stage. Bone metastases were assessed with WBBS and magnetic resonance image if WBBS was suspicious. We divided the patients into 3 D’Amico risk groups as low (Group 1), intermediate (Group 2) and high risk (Group 3).

RESULTS: There were 49, 155 and 239 patients in Group 1, 2 and 3, respectively. Mean ages of the patients were 65.88 (±8.16), 66.35 (±7.16) and 69.57 (±8.55) in Group 1,2 and 3, respectively (p = 0.083). Although there appeared to be a significant relationship, this was inverse in Groups 1 and 2. However, analysis in these groups is limited because of the insufficient number of metastatic patients. There is a strong positive relationship between PNI and bone metastasis in group 3 (p= 0.001, Table 1). Sensitivity, specificity and positive predictive value of PNI for bone metastasis in Group 3 were 66.3 %, 73.9 % and 70.6 %, respectively. Because of the inverse relationship in Groups 1 and 2, univariable and multivariable logistic regression analyses were performed only in Group 3 where we found that PNI significantly increased bone metastasis (Table 2).

*: Chi-square test;**: Fisher’s exact test; - : Inverse relationship.

<table>
<thead>
<tr>
<th>Group</th>
<th>WBBS - n(%)</th>
<th>WBBS + n(%)</th>
<th>p*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group 1</td>
<td>PNI- 44(100)</td>
<td>0(0)</td>
<td>-0.009**</td>
</tr>
<tr>
<td></td>
<td>PNI+ 3(60)</td>
<td>2(40)</td>
<td></td>
</tr>
<tr>
<td>Group 2</td>
<td>PNI- 123(93.2)</td>
<td>9(6.8)</td>
<td>-0.003</td>
</tr>
<tr>
<td></td>
<td>PNI+ 16(69.6)</td>
<td>7(30.4)</td>
<td></td>
</tr>
<tr>
<td>Group 3</td>
<td>PNI- 91(70)</td>
<td>39(30)</td>
<td>0.001</td>
</tr>
<tr>
<td></td>
<td>PNI+ 32(29.4)</td>
<td>77(70.6)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>OR(95%CI)</td>
<td>p</td>
<td></td>
</tr>
<tr>
<td>Univariate</td>
<td>PNI 5.61(3.21-9.80)</td>
<td>0.001</td>
<td></td>
</tr>
<tr>
<td></td>
<td>tPSA 6.63(3.65-12.165)</td>
<td>0.001</td>
<td></td>
</tr>
<tr>
<td></td>
<td>GS 2.24(1.60-3.08)</td>
<td>0.001</td>
<td></td>
</tr>
<tr>
<td></td>
<td>DRE 2.97(1.06-8.309)</td>
<td>0.007</td>
<td></td>
</tr>
<tr>
<td>Multivariate</td>
<td>PNI 4.81(2.41-9.58)</td>
<td>0.001</td>
<td></td>
</tr>
<tr>
<td></td>
<td>tPSA 6.33(3.20-12.51)</td>
<td>0.001</td>
<td></td>
</tr>
<tr>
<td></td>
<td>GS 1.74(1.18-2.58)</td>
<td>0.005</td>
<td></td>
</tr>
<tr>
<td></td>
<td>DRE 1.60(0.65-3.93)</td>
<td>0.505</td>
<td></td>
</tr>
</tbody>
</table>
CONCLUSIONS: PNI increased the risk of bone metastasis in high risk PCa patients. However, in low and intermediate risk patients, number of metastatic patients were not sufficient to make appropriate conclusions. Studies with larger number of patients may be helpful in low and intermediate groups.

Eur Urol Suppl 2014; 13(7) e1504
INTRODUCTION & OBJECTIVES: Prostate cancer is the second most common cancer among men worldwide. Furthermore, this malignancy is the sixth leading cause of cancer-related death. Due to these alarming statistics, considerable research efforts have focused on discovering molecular mechanisms underlying its onset and progression, which still remain poorly understood. Association studies have identified numerous PCa susceptibility loci, some of which are potentially functional. Among these genetic variants are those located in genes involved in RNA interference, including those encoding components of RISC complex. This study aimed to assess the potential association between genetic variant rs7813 in GEMIN4 and the risk of PCa in Serbian population. Furthermore, we assessed the association of rs7813 with standard prognostic parameters of PCa progression, as well as with the risk of cancer progression.

MATERIAL & METHODS: In this study, 268 samples of peripheral blood were obtained from the patients with PCa and 254 samples from patients with benign prostatic hyperplasia (BPH). The control group comprised 176 volunteers derived from general population who gave samples of buccal swabs. For patients diagnosed with PCa clinicopathological characteristics including serum prostate-specific antigen level at diagnosis, Gleason score (GS) and clinical stage were determined. Genotyping of rs7813 was performed using Taqman® SNP Genotyping Assay. Analyses of SNP association were done using tests based on logistic regression implemented in SNPStats software.

RESULTS: The comparison of genotype frequencies in PCa patients and controls yielded no evidence of association between rs7813 and the risk of PCa (P=0.72, for codominant model). Furthermore, when comparing genotype distributions among PCa and BPH patients, no statistically significant difference was found (P=0.61, for codominant model). This genetic variant was not found to be associated with Gleason score and serum prostate-specific antigen level at diagnosis, while for the association with the increased clinical stage of localized tumor under overdominant model statistical significance was reached (OR=0.45; 95% CI 0.20-0.99; P=0.044). The obtained results did not support the association of rs7813 with the increased risk of PCa progression.

CONCLUSIONS: Genetic variant rs7813 in GEMIN4 gene was not found to be associated with PCa susceptibility, nor with the increased risk of PCa progression in Serbian population.
S151: Inter-regional variability of prostate cancer incidence and mortality rates in the MENA region

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INTRODUCTION & OBJECTIVES: While the incidence and mortality rates for prostate cancer in United States of America and other developing countries are decreasing, those rates in the Arab Middle East and North Africa (MENA) region are not well documented with few reports from the MENA region pointing towards an increasing incidence and mortality rates for prostate cancer. In this study, we reviewed prostate cancer incidence and mortality rates in some MENA countries using IARC, GLOBOCAN 2012-Data and compare it to United States and world incidences.

MATERIAL & METHODS: The GLOBOCAN 2012 database was queried and the incidence and mortality rates for prostate cancer were available for 19 countries. All incidence and mortality rates were directly age-standardized to the Segi World Standard population. Moreover, mortality to incidence rate ratio (MR:IR) was considered as an approximate estimator of survival for each country. Survival is inversely related to this ratio.

RESULTS: The reported incidence rates of prostate cancer show significant discrepancies between countries. The lowest rate was seen in Yemen at a rate of 2.3 ASR, while the highest rate was observed in Lebanon which was 16 times more frequent than Yemen at a rate of 37.2 ASR. The mortality rate was reported to be the highest in Comoros at a rate of 20.8 ASR, whereas in Kuwait the mortality rate was the lowest at a rate of 3 ASR. Additional proof supporting these differences in survival can be extrapolated from MR:IR ratio. The MR:IR ratio in individual countries ranged from 0.2 in Kuwait to over 0.8 in Djibouti, Yemen and Comoros. The population-averaged MR:IR ratio was 0.5 in MENA weighed against 0.09 in USA.

CONCLUSIONS: To our knowledge this is the first study that depicts the inter-regional variability of prostate cancer incidence and mortality rates in MENA region. The reasons for this variability are probably multi-factorial and they are beyond the scope of this study. However, population-based registry and continuous reporting are required to allow governments and health planners to implement prostate cancer screening programs and raise awareness on this problem.

Eur Urol Suppl 2014; 13(7) e1506
S153: Robot-assisted radical prostatectomy after previous prostate surgery: Clinical and functional outcomes

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INTRODUCTION & OBJECTIVES: The objective of this study was to clarify the effect of previous TURP or open prostatectomy (OP) on surgical, oncological, and functional outcomes after robot assisted radical prostatectomy (RARP).

MATERIAL & METHODS: The records of 380 patients who underwent RARP between August 2009 and March 2013 were retrospectively reviewed. A total of 25 men had undergone surgery for primary bladder outlet obstruction (20 TURP and 5 OP) before RARP (Group1). A match-paired analysis was performed using our database to identify 36 additional men without a history of prostate surgery with equivalent clinicopathologic characteristics to serve as a control group (Group2). Patients characteristics, complications and functional outcomes followed up for 12 months were assessed.

RESULTS: Both groups were similar with respect to peroperative characteristics as age, BMI, PSA, prostate volume, clinical stage, Gleason score, D'amiico risk, ASA, IPSS, continence and potency status. RARP resulted in longer console time and higher blood loss compared to surgery naive patients. No difference were found in the pathologic stage, positive surgical margin and nerve sparing procedure between the groups. We noted a greater rate of urinary leakage (pelvic drainage >4 days) in Group 1 (12% vs 2.8%). Biochemical recurrence developed in 12% and 11.1% of patients, respectively. No significant difference was found in the anastomotic stricture, continence and potency rates.

CONCLUSIONS: RARP after TURP or open prostatectomy is a challenging but oncologically promising procedure with a longer dissection time, and greater blood loss. Patients with incidental prostate cancer found at the time of TURP or had previously undergone TURP as well as OP should be considered for RARP.

Eur Urol Suppl 2014; 13(7) e1507
Perineural invasion increases with increasing Gleason sum in prostate cancer independent from PSA

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1University of Kocaeli, Dept. of Urology, Kocaeli, Turkey, 2University of Kocaeli, Dept. of Pathology, Kocaeli, Turkey

INTRODUCTION & OBJECTIVES: In this study, we aimed to evaluate the relationship between perineural invasion (PNI) and Gleason sum (GS) in patients with prostate cancer (PCa).

MATERIAL & METHODS: Medical records of 426 PCa patients were retrospectively reviewed. Age, GS, presence of PNI and total PSA (tPSA) values were recorded. Patients were categorized into 3 groups on the basis of tPSA as Group 1 (tPSA<10ng/ml), Group 2 (tPSA 10-20ng/ml) and Group 3 (tPSA>20ng/ml). Univariate logistic regression (ULR) analysis was used for statistical analysis.

RESULTS: There were 198, 100 and 128 patients in Group 1, 2 and 3, respectively. Mean ages were similar between the groups; 67.06 (±8.05), 67.93 (±7.66) and 69.81 (±8.37) in Group 1, 2, and 3, respectively. In all groups and in the whole cohort, there was a significant positive relationship between PNI and GS; PNI rate increased with increasing GS (Table). Furthermore, ULR still remained significant in the whole cohort even after the exclusion of 39 very high outlier tPSA values.

<table>
<thead>
<tr>
<th></th>
<th>OR (95% CI)</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>PNI Group 1</td>
<td>1.93(1.30-2.88)</td>
<td>0.001</td>
</tr>
<tr>
<td>Group 2</td>
<td>2.63(1.58-4.36)</td>
<td>0.001</td>
</tr>
<tr>
<td>Group 3</td>
<td>1.57(1.10-2.25)</td>
<td>0.013</td>
</tr>
<tr>
<td>Total</td>
<td>2.25(1.82-2.78)</td>
<td>0.001</td>
</tr>
</tbody>
</table>

CONCLUSIONS: PNI rate increased with increasing GS in PCa patients independent from tPSA. This result may indicate PNI as a poor prognostic factor parallel to GS in future if our data can be supported by studies with large number of patients.

Eur Urol Suppl 2014; 13(7) e1508
S158: Relationship between prostate size and positive surgical margin in the radical prostatectomy surgery

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INTRODUCTION & OBJECTIVES: To investigate the relationship between prostate size and positive surgical margin in patients who underwent a radical prostatectomy.

MATERIAL & METHODS: Records of 83 patients were analysed retrospectively who had undergone a radical prostatectomy within the last five years in our clinic. The patients' age, total PSA, prostate volume (PV), number core of cancer detected on biopsy, Gleason score, preoperative and postoperative transfusion volume, and positive surgical margins were recorded. Patients were divided into two groups by prostate size cut off at a value of 40 cc. Both groups were compared in terms of positive surgical margins.

RESULTS: 83 patients were included in the study, and their mean age was 61.71±5.68, their mean PSA was 14.26±9.07 ng/mL, and their mean prostate volume was 14.83±36.82 mL. When the two groups were compared among age, total PSA, tumor detected core number, Gleason score, and transfusion volume, there was no significant difference (Table 1). When these two groups were compared among positive surgical margins, there was also no significant difference (Table 2).

CONCLUSIONS: In this retrospective study, we found that there is no statistically significant relationship between prostate size and positive surgical margin. In our opinion, positive surgical margin is independent of prostate size, and it is related to surgical technique and the surgeon's experience.

Eur Urol Suppl 2014; 13(7) e1509

<table>
<thead>
<tr>
<th>Table 1:</th>
<th>( \text{Age} )</th>
<th>( \text{Total PSA (ng/mL)} )</th>
<th>( \text{Number of Cancer Positive Core} )</th>
<th>( \text{Gleason Score} )</th>
<th>( \text{Transfusion (U)} )</th>
</tr>
</thead>
<tbody>
<tr>
<td>PV&lt;40 mL (n=51)</td>
<td>61.31±5.87</td>
<td>6.96±2.99</td>
<td>3.57±2.53</td>
<td>6.35±0.57</td>
<td>2.19±1.83</td>
</tr>
<tr>
<td>PV&gt;40 mL (n=32)</td>
<td>62.34±5.39</td>
<td>8.66±7.59</td>
<td>3.47±2.90</td>
<td>6.29±0.60</td>
<td>2.43±2.03</td>
</tr>
<tr>
<td>( p )</td>
<td>0.533</td>
<td>0.669</td>
<td>0.482</td>
<td>0.759</td>
<td>0.588</td>
</tr>
</tbody>
</table>

*Mann-Whitney U Test*

<table>
<thead>
<tr>
<th>Table 2:</th>
<th>( \text{PV&lt;40 mL (n=51)} )</th>
<th>( \text{PV&gt;40 mL (n=32)} )</th>
<th>( p )</th>
</tr>
</thead>
<tbody>
<tr>
<td>Negative Surgical Margin</td>
<td>31 (61%)</td>
<td>18 (56%)</td>
<td>0.683</td>
</tr>
<tr>
<td>Positive Surgical Margin</td>
<td>20 (39%)</td>
<td>14 (44%)</td>
<td>0.683</td>
</tr>
</tbody>
</table>

*Chi-Square Test*
S160: The application of intraoperative frozen section of the prostate to reduces positive margin rates while ensuring nerve-sparing procedure during robotic assisted radical prostatectomy – Initial UK single centre experience

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INTRODUCTION & OBJECTIVES: To evaluate whether intraoperative frozen section analysis (FS) of the prostate surface might provide significant information ensuring nerve-sparing and minimizing positive margin rates.

MATERIAL & METHODS:

Between 11/2011 and 04/2014, 20 patients with intermediate and high risk prostate cancer treated with robotic radical prostatectomy (RRP) received intraoperative whole surface FS analysis of the prostate. The apex and base were circumferentially dissected as well as the whole posterolateral tissue corresponding to the neurovascular bundles (NVB). Multiple perpendicular sections were cut systematically for FS analysis.

Pict. 1 A positive surgical margin on frozen section is reported as the presence of one invasive malignant gland that contact with the inked margin

Pict.2 The sectioned slice of tissue is further serially sectioned into 3-4 mm slices. All the slices are then arranged in a serial manner to maintain the anatomic orientation

RESULTS: Frozen Section analysis was performed in 20 patients who underwent a RRP and 40 corresponding FS analysis were performed. Tumour was identified in 8/40 (20%) of FS and the ipsilateral nerve bundle was excised. On analysis of the nerve bundle, 5 proven T3 cancer foci were found within the NVB at the matched point. No tumour was found in the remaining 3 bundles. On final histology all patients with T2 (n=15) disease had negative surgical margins and T3 (5) had tumour present in 2/5 patients (40%). Our positive surgical rate in our 500 cases performed so far has dropped to 0% from a previous 17% using this technique. On the commencement of intraoperative FS technique the mean operative time increase by 17 minutes (Range 11-47 minutes). Biochemical relapse data not long enough yet but all PSAs <0.05 @ 3 months median follow up.
CONCLUSIONS: In our series there was a reduction in the PSM for T2 disease with bilateral nerve spare from 17.8% to 0% on the commencement of intraoperative frozen section analysis. Our T3 positive margin rate remained high at 40% but both men are potent. Our technique has been cautious to start but improving. Larger patient numbers and longer follow is required to validate these results, but our initial results are very encouraging.

Eur Urol Suppl 2014; 13(7) e1510
S162: Incidental prostatic adenocarcinoma in patients treated last 10 years on urological clinic
University clinical centre Sarajevo

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INTRODUCTION & OBJECTIVES: Prostatic carcinoma is one of the most frequent carcinomas in men over 50 years old. Prostatic incidental adenocarcinoma is found unintentionally, after TURP performed because of BHP, thereupon, after the prostate is removed following the cystoprostatectomy, latently in obduction, or during physical examination or laboratory tests. That is the early stage of prostatic carcinoma, which does not produce any symptoms, and which can not be discovered with digitorectal examination.

MATERIAL & METHODS: In this research the primary aims were to determinate the number of patients with incidental adenocarcinoma in total sample, than clinical characteristic of patients both examined groups, histopathological characteristic and possible therapeutic options of patients with adenocarcinoma, and possible risk factors and their prognostic value in detection of prostatic incidental adenocarcinoma in group of patients with BHP, surgically treated. Research was carried out at Urological Clinic University clinical centre Sarajevo. retrospective study was reformed that covered 1485 patients operatively treated, of which 373 hed begin prostate ailment, and 98 patients had prostate incidental adenocarcinoma.

RESULTS: Out of total number of patients (1485) operatively treated in period from 2004. to 2013. The study included 373 patients with benign prostatic hyperplasia, and 98 patients with incidental prostatic cancer. The largest number of patients were in age range from a 45 ti 86. Patients with benign ailment had IPSS ranged from 15 to 27. Out of total number of patients 107 (22,7%) had a complete urinary retention. Fourteen (14,3%) patients had positive digitorectal examination of prostate. Average serum PSA level was 4 ,4 ( SD 2,4). Gleason score range from 2 to 10, with average score of 5,7 ( SD 1,6). Largest number of patients had carcinoma in pT1a stage (78,6%), and smallest number were pT3a stage (1%). Research showed that on 66 (67,3%) patents biopsy either was not preformed or there was no any data on it, 15 (15,3%) of them had 1 of 2 biopsies, and only 2 (2%) patients had 3 biopsies.

CONCLUSIONS: The study showed that patients with incidental prostatic cancer represent heterogenous group, as well as that they are of older age, have elevated level of serum PSA, suspect findings of digitorectal examination, significant risk factors in detection of IcaP.

Eur Urol Suppl 2014; 13(7) e1511
S163: Laparoscopic partial nephron sparing resection in kidneys at tumor stage T1a/b. Evtimov N.
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INTRODUCTION & OBJECTIVES: After first laparoscopic nephrectomy in 1991 by Claiman, more of operations are possible to be made laparoscopic. Through the last decade with the procreation of technology, nephron sparing operations are accepted “gold standard,” in treatment for kidney tumor between 4-7 cm. size. The Aim of this study is a video-presentation a method, of laparoscopic sparing operative technique in treatment for kidney tumor in stag T1a/b.

MATERIAL & METHODS: During 2011-2014 we have 24 completed laparoscopic nephron sparing procedures (LNSS) by elimination of the tumor with help of elektroresection.

RESULTS: With this methods more nephrons are spared and the kidney function is preserved, cardiovascular incidents lessen, as well as the time of rehabilitation of patients and expenditure for medication of patients. That also facilitates subsequent chemotherapy.

CONCLUSIONS: LNSS are always more preferable for tumor kidneys in stage T1a/b less 4 cm and also T1b between 4-7 cm. Using elektroresection effective for better oncologic results and diminishes intra operative bleeding.

Key words LNSS:

Eur Urol Suppl 2014; 13(7) e1512
Symptomatic renal angioleiomyoma in a monozygotic twin

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INTRODUCTION & OBJECTIVES: Renal angioleiomyomas are an extremely rare type of angioleiomyomas. This is the 3rd reported case to our knowledge. They are typically benign mesenchymal tumors but with the potential of hazardous locoregional manifestations like excessive growth, concurrence with clear cell RCC, bleeding and pain. Due to the rarity of these tumors and the lack of universal management protocol these cases stand as a challenge for the clinicians.

MATERIAL & METHODS: Our case is a 26 years old, male monozygotic twin presented in the ER with left lumbar pain and microhematuria. Imaging revealed a 50x42 mm solitary late enhancing mass in the middle of the left kidney. CT showed non-enhancement in the early corticomedullary phase but enhancement of >100HU during the nephrographic phase. The MRI showed low signal encapsulated mass in the middle of the left kidney. The patient underwent left nephrectomy. The histology of the specimen revealed an encapsulated whitish elastic tumor with pericapsular lymphocytic infiltration and oedema. The tumor stained positive for SMA and Desmin and negative for AE1/AE3. A diagnosis of angioleiomyoma was made. The Dx of angioleiomyomas include other mesenchymal tumors like myopericytoma, glomus tumor, AML, hemangiopericytoma, leiomyosarcoma, spindle cell RCC and is made exclusively by immunohistochemistry.

In our case the monozygotic twin brother of the patient underwent thorough examination under time of his sibling's diagnosis and received no further instructions for routine follow-up due to the lack of bibliographic evidence.

RESULTS:

CONCLUSIONS: Angioleiomyomas are more often seen in the fourth to sixth decade of life predominantly in females in a 1.7:1 ratio. Currently no standard approach exist and surgical excision remains the treatment of choice. These cases need to be brought up in view and prospectively followed up so that a treatment algorithm can be constructed.

Eur Urol Suppl 2014; 13(7) e1513
S167: A rare case: Kidney metastases from pancreas adenocarcinoma

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²Gulhane Military Medical Academy Haydarpasa Hospital, Dept. of Urology and Pathology, Istanbul, Turkey

INTRODUCTION & OBJECTIVES: Metastatic masses in the kidney are rare. Metastasis of pancreas adenocarcinoma to the kidney is even rarer. To the best of our knowledge, this case is first detected right kidney metastasis from pancreas adenocarcinoma in a living man. In this case report a very rare living case of pancreas adenocarcinoma metastasis to the right kidney has been presented.

MATERIAL & METHODS:

The patient, 58 year-old man, with macroscopic hematuria has applied to the emergency service. In abdominopelvic CT, a lesion which is not visualized as a complete mass but as a patch, extending from pelvis to parenchyma has been detected(Figure 1). Three months later due to pulmonary embolism the patient was hospitalized. In the MRI, at the pancreas uncinate process location, adjacent to duodenum in the axial plane, 3x2 cm in size a malignant considered mass covering almost all the right kidney was detected (Figure 2). Metastasis of pancreas adenocarcinoma to the right kidney was found by biopsies. (Figure 3)

RESULTS: As a result for the patients with a patch-style suspicious mass in the right kidney applying with hematuria, pancreas adenocarcinoma metastasis should be considered. When pancreas cancer is undetected by imaging techniques, for the differential diagnosis of the unclear patch style mass lesion in kidney, pancreas cancer should also be considered and in such suspicious cases renal biopsy should be done without delay.
CONCLUSIONS: The first symptom for pancreatic cancer might be hematuria due to kidney metastasis. Pancreatic metastasis should be kept in mind for differential diagnosis of suspicious masses determined in the right kidney. Early diagnosis of pancreas cancer would lengthen the patients’ lifetime.

Eur Urol Suppl 2014; 13(7) e1514
**S168: Impact of pre operative radiological and post operative pathological findings on survival of patients after radical nephrectomy because of renal cell cancer**

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**INTRODUCTION & OBJECTIVES:** To evaluate the impact of pre operative radiological and post operative pathological finding on survival of patients after radical nephrectomy because of renal cell cancer (RCC).

**MATERIAL & METHODS:** Between December 2007 and January 2014 we performed radical nephrectomy to 159 consecutive patients. We evaluated age, gender, complaints, operation time, comorbidity, computed tomography and magnetic resonance imaging results. Tumor size, lymph node invasion, renal vein invasion and existence of distal metastasis were evaluated by radiological results. Pathological diagnosis, subtypes if RCC, lymph node invasion, lymphovascular invasion, perineural invasion, capsular invasion, renal pelvis invasion, renal vein invasion were evaluated by pathology results. Follow up periods were calculated according to time of death and study date.

**RESULTS:** RCC was seen in 124(78%) of patients. Mean estimated survival of RCC patients was 60 months and 5 year survival was 64%. Tumor size greater than 6.5 cm, lymph node involvement (p=0.006) and distal metastasis in radiological results (p<0.001), lymphovascular invasion (p=0.015) and stage of disease (p<0.001) found to be significantly affecting the survival. Lymph node involvement in radiological results (p=0.0089; HR:4.6; CI%95: 1.4753 -14.3523) and stage of disease (p=0.0129; HR:1.6;CI%95: 1.1087- 2.3461) were affecting the survival independently.

Table 1: Patient demographics

<table>
<thead>
<tr>
<th></th>
<th>Mean survival (months)</th>
<th>P value</th>
<th>Mean age (years)</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>All patients</td>
<td>60.05</td>
<td></td>
<td>60.6</td>
<td></td>
</tr>
<tr>
<td>Size</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>≤7cm</td>
<td>66.50</td>
<td>0.006</td>
<td>61.3</td>
<td>0.485</td>
</tr>
<tr>
<td>&gt;7cm</td>
<td>51.10</td>
<td></td>
<td>59.7</td>
<td></td>
</tr>
<tr>
<td>Size</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>≤6.5cm</td>
<td>69.78</td>
<td>0.001</td>
<td>60.8</td>
<td>0.833</td>
</tr>
<tr>
<td>&gt;6.5cm</td>
<td>50.92</td>
<td></td>
<td>60.3</td>
<td></td>
</tr>
<tr>
<td>Radiological lymph node involvement</td>
<td></td>
<td>0.006</td>
<td></td>
<td>0.904</td>
</tr>
<tr>
<td>Yes</td>
<td>21.20</td>
<td></td>
<td>59.6</td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>42.60</td>
<td></td>
<td>58.8</td>
<td></td>
</tr>
<tr>
<td>Radiological Distant metastasis</td>
<td></td>
<td>&lt;0.001</td>
<td></td>
<td>0.817</td>
</tr>
<tr>
<td>Yes</td>
<td>27.80</td>
<td></td>
<td>62.1</td>
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<tr>
<td>No</td>
<td>55.20</td>
<td></td>
<td>60.8</td>
<td></td>
</tr>
<tr>
<td>Lymphovascular invasion in pathology</td>
<td></td>
<td>0.015</td>
<td></td>
<td>0.438</td>
</tr>
<tr>
<td>Yes</td>
<td>29.80</td>
<td></td>
<td>60.3</td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>61.50</td>
<td></td>
<td>62.7</td>
<td></td>
</tr>
<tr>
<td>Number of accompanying co morbidity</td>
<td></td>
<td>0.001</td>
<td></td>
<td>0.128</td>
</tr>
<tr>
<td>≤2</td>
<td>63.33</td>
<td></td>
<td>60.0</td>
<td></td>
</tr>
<tr>
<td>Stage</td>
<td>P value</td>
<td>Odds ratio</td>
<td>95% Confidence interval values</td>
<td></td>
</tr>
<tr>
<td>-------</td>
<td>---------</td>
<td>------------</td>
<td>------------------------------</td>
<td></td>
</tr>
<tr>
<td>&gt;2</td>
<td>&lt;0.001</td>
<td>33.84</td>
<td>65.7</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>0.0129</td>
<td>1.6128</td>
<td>1.1087 - 2.3461</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>52.89</td>
<td>61.4</td>
<td>58.9</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>52.86</td>
<td>60.5</td>
<td>58.9</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>27.04</td>
<td>61.3</td>
<td>61.3</td>
<td></td>
</tr>
</tbody>
</table>

Table 2: Patients risk factors

CONCLUSIONS: We found radiological lymph node involvement and stage of disease as independent factors affecting the survival of RCC patients after radical nephrectomy.

Eur Urol Suppl 2014; 13(7) e1515


**S169: Complications related to nephron sparing surgery due to localized renal cancer according to Clavien – Dindo classification**


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**INTRODUCTION & OBJECTIVES:** Renal Cell Cancer (RCC) is the third most frequent urological cancer with annual increase in incidence of 2% in Europe (Except Denmark and Sweden) and worldwide. Surgery is the only curative procedure, performed as radical nephrectomy (RN) or partial nephrectomy (Nephron sparing surgery - NSS). Partial nephrectomy implies resection of the tumor with surrounding healthy tissue margin of 1-3mm and preservation of the rest of the kidney as well as ipsilateral adrenal gland and lymph nodes.

The aim of this study was to present the complications of NSS in our group of patients (pts) according to widely used Clavien - Dindo classification.

**MATERIAL & METHODS:** This retrospective study observed postoperative complications in 242 pts (male: 148 (61.1%), female: 94 (38.9%)) diagnosed with RCC, who underwent NSS due to RCC at our Clinic from 2001-2013. There was an increase of NSS in that period compared to RN for localized RCC. 11 pts had bilateral tumors (synchronous 8 pts, asynchronous 3 pts). Better kidney was operated first. Indications for NSS were: absolute - 34 pts (15%), relative – 58 pts (23,1%) and elective – 150 pts (61,9%). In all the patients open surgery was performed in general anesthesia, mostly through lumbothomy, according to established protocol for this procedure based on recommendation of prof. dr A. Novick, Cleveland, USA. Average tumor size was 4.75cm (2.3-7cm). All complications were classified according to Clavien - Dindo classification of complications.

**RESULTS:** A total number of 46 complications occurred in 242 pts (19%). Most of them were grade I - 11.98% (high temperature - 9 pts, elevated level of serum cratinine – 7 pts, noninfectious diarrhea - 5 pts, wound infection – 8 pts), 2.89% were grade II (blood transfusion – 7pts), 2.47% grade IIIa (supralselective embolization – 1 pt, sondage of ureter – 5 pts) and 1.65% grade IIIb (nephrectomy – 4 pts). There were no grade IV and V complications.

**CONCLUSIONS:** Nephron sparing surgery is the first choice of surgery for pts with low grade kidney tumors (up to 4.5cm, even 7cm). Complications related to NSS (Clavien - Dindo Classification) are rare and comparable with radical nephrectomy, but with preservation of kidney function. NSS has excellent oncological results and should be done by experienced surgical team.

Eur Urol Suppl 2014; 13(7) e1516
INTRODUCTION & OBJECTIVES: Metabolic syndrome (MetS) involves several interrelated metabolic risk factors including insulin resistance, central obesity, dyslipidemia, and hypertension. Renal cell carcinoma (RCC) is increasingly recognized as a metabolic disease in recent studies. The aim of this study was to identify the prevalence of MetS and its association with RCC among urologic patients.

MATERIAL & METHODS: The study included a total of 355 participants (117 adult RCC patients and 238 age-matched controls) divided into groups, with and without MetS diagnosed on the criteria of the American Heart Association/The National Heart, Lung, and Blood Institute. Groups were compared statistically, and logistic regression analysis was performed to investigate the impact of MetS criteria on RCC risk.

RESULTS: Of the 117 RCC patients, 52 (44.4%) and of the 238 controls, 37 (15.5%) had MetS. A significant association (P < 0.001) was found between the presence of MetS and RCC (OR: 4.35; 95% CI = 2.62-7.21). As the number of MetS components cumulated from 3 to 5, RCC risk increased likewise from 4 to 6 times. Hypertension was found to be the most risky MetS component for RCC (OR: 10.46; 95% CI = 5.95-18.41) (Table 1 and 2). Histological subtype and nuclear grade of RCC patients were not significantly different regarding the presence of MetS (P = 0.46 and 0.99, respectively).

Table 1. Prevalence of variables and their association with RCC risk

<table>
<thead>
<tr>
<th></th>
<th>Control</th>
<th>RCC</th>
<th>χ²</th>
<th>P</th>
<th>OR</th>
<th>(95% CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>%</td>
<td>n</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>110</td>
<td>46.2</td>
<td>35</td>
<td>29.9</td>
<td>8.63</td>
<td>0.003</td>
</tr>
<tr>
<td>Male</td>
<td>128</td>
<td>53.8</td>
<td>82</td>
<td>70.1</td>
<td></td>
<td>2.01 (1.26-3.22)</td>
</tr>
<tr>
<td><strong>BMI</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BMI &lt; 30</td>
<td>186</td>
<td>78.2</td>
<td>81</td>
<td>69.2</td>
<td>3.35</td>
<td>0.067</td>
</tr>
<tr>
<td>BMI ≥ 30</td>
<td>52</td>
<td>21.8</td>
<td>36</td>
<td>30.8</td>
<td></td>
<td>1.59 (0.97-2.62)</td>
</tr>
<tr>
<td><strong>FBG</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt; 100 mg/dL</td>
<td>166</td>
<td>69.7</td>
<td>72</td>
<td>61.5</td>
<td>2.39</td>
<td>0.122</td>
</tr>
<tr>
<td>≥ 100 mg/dL or being on drug treatment for elevated glucose</td>
<td>72</td>
<td>30.3</td>
<td>45</td>
<td>38.5</td>
<td>1.44 (0.91-2.29)</td>
<td></td>
</tr>
<tr>
<td><strong>WC</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt; 102 cm in men</td>
<td>108</td>
<td>45.4</td>
<td>55</td>
<td>47.0</td>
<td>0.03</td>
<td>0.772</td>
</tr>
<tr>
<td>&lt; 88 cm in women</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.94 (0.60-1.46)</td>
</tr>
<tr>
<td>≥ 102 cm in men</td>
<td>130</td>
<td>54.6</td>
<td>62</td>
<td>53.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>≥ 88 cm in women</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TG</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt; 150 mg/dL</td>
<td>154</td>
<td>64.7</td>
<td>65</td>
<td>55.6</td>
<td>2.41</td>
<td>0.096</td>
</tr>
</tbody>
</table>
Table 2. Prevalence of number of MetS components and its association with RCC risk

<table>
<thead>
<tr>
<th>Number of MetS components</th>
<th>Control n</th>
<th>%</th>
<th>RCC n</th>
<th>%</th>
<th>χ²</th>
<th>P</th>
<th>OR</th>
<th>(95% CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-1-2 (not MetS)</td>
<td>201</td>
<td>84.5</td>
<td>65</td>
<td>55.6</td>
<td>35.25</td>
<td>&lt;0.001</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>26</td>
<td>10.9</td>
<td>34</td>
<td>29.1</td>
<td></td>
<td></td>
<td>4.044</td>
<td>(2.26 - 7.24)</td>
</tr>
<tr>
<td>4</td>
<td>8</td>
<td>3.4</td>
<td>12</td>
<td>10.3</td>
<td></td>
<td></td>
<td>4.638</td>
<td>(1.82 - 11.84)</td>
</tr>
<tr>
<td>5</td>
<td>3</td>
<td>1.3</td>
<td>6</td>
<td>5.1</td>
<td></td>
<td></td>
<td>6.185</td>
<td>(1.50 - 25.43)</td>
</tr>
</tbody>
</table>

**CONCLUSIONS:** MetS was more prevalent in RCC patients compared to controls. RCC risk increased with the presence of MetS. The risk further increased with the number of coexisting MetS components.

Eur Urol Suppl 2014; 13(7) e1517
S173: The new training modality of laparoscopic transperitoneal nephrectomy: Experience on fresh frozen cadavers

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INTRODUCTION & OBJECTIVES: In 1990’s, following the first description of laparoscopic nephrectomy, increasing numbers of laparoscopic urologic procedures including laparoscopic radical prostatectomy has been effectively performed worldwide with promising outcomes. Many studies have demonstrated that an established laparoscopic training program should include theoretical and practical activities, including manual and virtual simulators (dry lab) and animal lab training (wet lab), before starting to operate on human subjects. Herein, we describe and present a new modality of laparoscopic urology training on transperitoneal nephrectomy by using fresh frozen cadavers.

MATERIAL & METHODS: Two types of cadavers including fresh-frozen and embalmed were used. The cadavers were embalmed by a mixture of one amount of pure ethanol, one amount of 37% formaldehyde, 3 amounts of distilled water and 0.2 amount of glycine administered via the route of common carotid and femoral arteries. Laparoscopic approach to the kidney included the following 4 steps with the visualization of anatomical landmarks: a. Trocar placement and endoscopic visualization of intraperitoneal organs, b. Incision of Toldt line and mobilization of the colon, c. Identification and dissection of the ureter and mobilization of the lower pole with renal pedicle and vascular control and d. Freeing upper pole from the adrenal gland. For a total of 10 trainees, there were 7 expert trainers and 3 anatomists. The duration of the procedures performed by the participants were recorded by one of our trainers. We applied psychometric tests to the participants for satisfaction of the course.

RESULTS: Following the insertion of abdominal trocars and laparoscopic instruments, 10 participants performed 4 nephrectomies on 2 fresh frozen cadavers. Total duration of the procedures was recorded as 330 minutes. The average dissection time for each participant was 33 minutes. All anatomical landmarks were shown during the procedures by the trainers. Average satisfaction score was 4.5/5.

CONCLUSIONS: We believe that use of cadavers for training in laparoscopic nephrectomy is feasible and effective as a model especially for the beginner-level and intermediate-level laparoscopic urology training.

Eur Urol Suppl 2014; 13(7) e1518
S175: Insidental bilateral non-familial and non-genetic renal tumor: A case study

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Kecioren Training and Research Hospital, Dept. of Urology, Ankara, Turkey

INTRODUCTION & OBJECTIVES: Renal cell carcinoma (RCC), accounts for 2-3% of all cancers. RCC is an aggressive tumor with a ratio of 20% to 30% distant metastases at initial diagnosis. RCC is predominant in men and mostly seen at ages between 60 and 70. Smoking, obesity, and hypertension are some of the etiologic factors. Specific dietary habits and occupational exposure to specific carcinogens are some of the other risk factors. According to WHO classification, major histological subtype is clear cell carcinoma (80-90%). Loss of chromosome 3p and mutation of the Von Hippel-Lindau (VHL) gene, located at chromosome 3p25 are frequently found. VHL gene is a tumor suppressor gene and VHL mutation is found in all familial renal tumors and also identified to be positive in 57% of sporadic cases.

MATERIAL & METHODS:

A 67 year-old male patient admitted to our clinic with prostatism symptoms and bilateral flank pain. According to the USG result; bilateral 3 cm-diameter exophytic masses originated from the right upper and left lower pole were detected. And according to the CT result; a 33x37 mm-sized exophytic heterogeneous right renal upper-pole mass and a 35x45 mm-sized exophytic heterogeneous left renal lower-pole mass were detected. (Figure 1) And after that we performed left partial nephrectomy at first.

RESULTS: The pathologic result was; renal cell carcinoma, clear cell type, Fuhrmann grade 1, negative microvascular invasion and negative surgical margins, T1a,N0,M0. On postoperative 1st month, we performed right partial nephrectomy. The pathologic result was; renal cell carcinoma, clear cell type, Fuhrmann grade 3, negative microvascular invasion and negative surgical margins, T1a,N0,M0. According to the genetical evaluation, VHL gene mutations or other familial forms mutations were not detected.

CONCLUSIONS: RCC is commonly seen unilateral and unifocal. 2-4% of the RCC’s are bilateral. Bilateral tumors are frequently non-familial. Our case was incidentally detected. With the special imaging techniques, incidentally diagnosed renal cell carcinomas are increased. According to some studies in literature, 4.7% of renal tumors were reported as bilateral and 12.1% of the bilateral tumors were reported with VHL and other familial syndromes. 87.9% of the bilateral tumors were non-familial. Our case is also non-familial renal cell carcinoma and also according to the genetic analyses, there were no significant results.

Eur Urol Suppl 2014; 13(7) e1519
How safe is laparoscopic nephrectomy in patients with stage 3 or 4 renal cell cancer

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INTRODUCTION & OBJECTIVES: Perioperative and oncological safety of laparoscopic radical nephrectomy (LRN) for stage 1 and 2 renal cell cancer (RCC) has been well established. Technically, LRN can be challenging for higher stages. In this study we aimed to review our experience with LRN for patients who had diagnosis of stage 3 or 4 disease.

MATERIAL & METHODS: Consecutive patients with pathological diagnosis of stage 3 or 4 RCC were included retrospectively from a LRN database of a single tertiary referral center. Preoperative patient and tumor characteristics were recorded.

RESULTS: Twenty patients met inclusion criteria in a total of 453 patients who underwent LRN between 2004 and 2014. Median age of the patients was 56 (42-80), 14 of the patients were male and 6 were female. Tumor were localized in 11 patients and LRN was performed for cytoreductive purposes in 9. Median length of operation was 120 (60-200) minutes and median estimated blood loss was 100 (30-1000) ml. Median hospitalization time was 3 (1-4). Three patients (15%) were transfused peroperatively. Inferior vena cava was injured in one patient during dissection and repaired laparoscopically. Conversion from laparoscopy to open surgery was experienced in one patient due to displacement of hemoclips on renal vein. Stage 3 RCC was diagnosed in 19 patients and stage 4 in one patient.

CONCLUSIONS: LRN is a safe method of surgery in selected cases with T3 and T4 RCC for experienced centers.

Eur Urol Suppl 2014; 13(7) e1520
S177: Laparoscopic radical nephrectomy in patients with renal vein invasion: Our initial experience

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INTRODUCTION & OBJECTIVES: Laparoscopic radical nephrectomy (LRN) can be challenging for patients with renal vein invasion. In this study we aimed to present our initial experience with LRN in patients with renal vein invasion.

MATERIAL & METHODS: This is a single surgeon experience of LRN with preoperative or peroperative diagnosis of renal vein invasion. Perioperative outcomes and techniques during dissection of renal vein were recorded.

RESULTS: Seven patients fit our inclusion criteria. Mean age was 55,2 ± 7,2 years, mean length of operation was 112,9 ± 34,5. Estimated blood loss was 106,25 ± 31,5 ml. Median hospitalization time was 3 (2-4). All cases were treated with pure laparoscopy and open conversion is not employed. Blood transfusion was not needed in any of the patients. Renal artery was clamped at interaortocaval region in 3 patients (Figure a). Endo GIA was used in 2 patients to clamp renal vein (Figure b) Laparoscopic suturing of vena cava was employed in one patient (Figure c,d).

CONCLUSIONS:

LRN can be an option in selected patients with renal vein invasion. High laparoscopic skills are needed to accomplish possible complications.

Eur Urol Suppl 2014; 13(7) e1521
INTRODUCTION & OBJECTIVES: Laparoscopic surgery has been established in many urological institutions as a highly effective mini-invasive method of treatment. The purpose of this study was to summarize and present our experience with laparoscopic nephrectomy, in all its variations.

MATERIAL & METHODS: Since January 2012 a total of 42 laparoscopic nephrectomies were performed at our institution. 20 of the patients were males, and 22 – females, at a mean age of 54.4 years /range 24 - 76 years/. The indication for nephrectomy was a malignancy /23 cases/, or a non-functioning kidney that was either hydronephrotic /14 cases/, or nephrosclerotic /5 cases/. 24 nephrectomies were performed on the right, and 18 - on the left. Transperitoneal approach was used in 41 of the cases, and 1 patient was operated extraperitoneally. Surgery was performed via 4 abdominal ports, supplemented in some women by an additional 10/12/-mm transvaginal port. A minimal incision in the lower abdomen and “endo-bag” were used in 27 cases, while in all of the rest the kidney was removed without additional skin incisions: via the vagina /6 cases/, or by division in pieces in the abdominal cavity with subsequent extraction of all fragments via the 10-mm abdominal port /9 cases/.

RESULTS: Most of the procedures were implemented with minimal blood loss, within a mean operative time of 105±25 (SD) min. Conversion to open surgery was done in 2 cases, necessitated either by uncontrolled bleeding during vascular division, or by technical difficulties during mobilization of a locally advanced kidney tumor. Another case of unrecognized injury of the epigastric vessels during trocar insertion led to postoperative hematoma formation and also required open revision. In the rest of the patients the postoperative period ran smoothly and without complications. The follow-up examinations confirmed the excellent cosmetic effect of the laparoscopic procedures performed.

CONCLUSIONS: Laparoscopic nephrectomy offers some distinct advantages over open surgery: excellent cosmetic effect, minimal surgical trauma, reduced blood loss, short reconvalescence, and a rapid recovery of patient physical activity. For these reasons, it is currently acknowledged as the most preferable surgical method in our institution – both for doctors and patients.

Eur Urol Suppl 2014; 13(7) e1522
S180: Robotic partial nephrectomy - Our first 30 consecutive cases

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INTRODUCTION & OBJECTIVES: We present our initial patient outcomes of Robotic assisted laparoscopic partial nephrectomy (RALPN) at our centre.

MATERIAL & METHODS: All data was collected prospectively. The transperitoneal approach was used in all our cases. The clinical parameters recorded include warm ischemia time (WIT), clampless procedures, estimated blood loss (EBL), operative time, length of stay (LOS) and oncological outcomes including positive surgical margins (PSM). The Clavien Dindo system was used for grading complications.

RESULTS: Thirty patients with a mean age of 56.7 years (Ranging between 25-81 years) underwent RPN between January 2010 and November 2013. The mean tumour size was 2.48cm (range 1.3cm-5.5 cm) of which 54% where right renal tumours (n=16) and 46% (n=14) where left renal tumours. The mean operative time was 217.5 min (170 min-260 min) and the mean console time was 164.3 minutes (120 min -210 min). The mean EBL was 140.2ml (10ml-1500ml) and the mean WIT was 16.1 min (0-34 min). Ten percent of patients (n=3) underwent clampless RPN and no postoperative transfusion was required. The mean LOS was 4 days (3-9) and only 1 patient (3 %) had positive surgical margins (PSM). The incidence of major complications was 3% (1 patient) who had a DVT following surgery (3%).

CONCLUSIONS: Our preliminary results show that RALPN is a safe technique with minimal complications. Longer follow up and larger patient numbers are required to validate these results further.

Eur Urol Suppl 2014; 13(7) e1523
INTRODUCTION & OBJECTIVES: Laparoscopic adrenalectomy is widely recognized as the preferred technique for surgical removal of adrenal masses. This study aimed to evaluate the outcomes of initial experience of laparoscopic adrenalectomies and compare operative results for pheochromocytomas with that of other adrenal diseases.

MATERIAL & METHODS: We retrospectively reviewed laparoscopic adrenalectomy performed in last two years. Patient records were analyzed in regards to demographics, pathology diagnoses, operative time, postoperative complications, tumor size, hospital stay, among others.

RESULTS: Twenty-two consecutive laparoscopic adrenalectomies were performed. Surgical indications included pheochromocytoma (n=4), aldosteronoma (n=1), malignant adrenal disease (n=1) and nonfunctioning adenomas (n=16). No mortality was observed. Perioperative complications occurred in 2 cases (9.1%). When a comparison between pathological diagnosis groups was made, no statistical differences were seen between pheochromocytomas and other adrenal neoplasms with respect to estimated blood loss, open conversion rate, length of stay, preoperative and postoperative hemoglobin values, blood transfusion rates, perioperative complication occurrence, tumor size, and ASA class.

CONCLUSIONS: Laparoscopic adrenalectomy is a safe and appropriate surgical technique for most adrenal lesions, including pheochromocytomas.

Eur Urol Suppl 2014; 13(7) e1524
INTRODUCTION & OBJECTIVES: The optimal diagnostic and therapeutic approach to a patient who has an incidental adrenal mass has not been established. Most adrenal mass cause no health problem.

MATERIAL & METHODS: Between 2009-2013 we have done 49 adrenalectomies. In 42 patients adrenal mass was detected during radiologic examination performed for indications other than an evaluation for adrenal disease. All patient preoperative have done biochemical evaluation of excess levels of hormones.

RESULTS: The pathohistological analysis revealed that majority of adrenal masses were benign adenomas, 2 of them silent pheochromocytomas, one adrenocortical carcinoma and one metastatic carcinoma.

CONCLUSIONS: Thorough investigation and close follow up should be obtained to assess the evidence of adrenal hormonal excess. Close colaboration among radiologist, endocrinologist and urologist should be to make right decision for the surgery.

Eur Urol Suppl 2014; 13(7) e1525
S188: Percutaneous nephrolithotomy in treatment of Staghorn calculi

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INTRODUCTION & OBJECTIVES: Percutaneous nephrolithotomy (PNL), combined methods (PNL-ESWL, PNL-PNL, PNL-ESWL-PNL) and open surgery are the choice of method in the treatment of staghorn calculi. In our study, the results of staghorn calculi treatment with PNL monotherapy were presented.

MATERIAL & METHODS: Between November 2003 and October 2013, 212 patients (90 women, 122 men), had undergone PNL because of staghorn calculi. Mean age was 48,1 years (5 to 74). 180 patients (84,9%) were primary and 27 patients (%12,7) were secondary, 4 patients (%1,8) were tertiary and 1 (% 0,4) patient was quarterner. In all cases 30 F amplatz dilation was performed.

RESULTS: The average calculi area calculated by two dimensions was 2024 mm² (80-9500 mm²).

Mean anesthesia duration was 102,7 minutes (45-360) and average operation time was 73,9 minutes (15-300). For each case averagely 2,1 renal access (1-7) was required and averagely 15940 cc (range 1800-45000cc) saline was used. The stone free rate on discharge was 67,9% (144 patients). When residual fragments smaller than 4 mm were accepted as clinically insignificant, our success rate became 91,5 (194/212). 53 patients (25%) required blood transfusion. Any other major complication was not seen except embolisation requiring bleeding in two patients (%0,9), and hydrothorax treated conservatively in 4 patients. The mean postoperative stay was 3,7 days (1-25) and mean spent time with neprostomy was 2,88 days (1-12).

CONCLUSIONS: PNL is a preferable choice of method in treatment of renal staghorn stones with acceptable success rate (91,5%). Blood transfusion rate is higher than non-staghorn stones but it is a minimally invasive treatment with shorter postoperative period.

Eur Urol Suppl 2014; 13(7) e1526
S190: Is antibiotic prophylaxis necessary prior to SWL treatment in patients with a nephrostomy tube as recommended?

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INTRODUCTION & OBJECTIVES: It has been postulated that fragmentation of an infected stone may result in release of bacteria thus recent guidelines recommend routine antibiotic prophylaxis before shockwave lithotripsy (SWL) treatment in patients with a nephrostomy tube. This study aimed to evaluate whether SWL treatment changes the bacterial microenvironment and to assess the necessity of routine antibiotic prophylaxis in patients with a nephrostomy tube.

MATERIAL & METHODS: Patients with an obstructing kidney stone who needed a nephrostomy tube for urgent decompression of the collecting system and who consecutively underwent SWL between March 2014 and May 2014 were prospectively included. Urine cultures were obtained during the placement of the nephrostomy tube and antibiotic treatment was initiated if indicated. Urine cultures were repeated before and after SWL sessions and results were compared.

RESULTS: Overall, 16 patients with mean age of 45.25±28.17 (range 17-61) were included. Antibiotic treatment was needed in 2 (12.5%) patients because of the Escherichia coli growth in urine sample taken during placement of nephrostomy tube. Median treatment session number was 3 (range: 2-4). Of the patients, 2 (12.5%) had Klebsiella and Escherichia after 1st and 3rd sessions, respectively. One of patients with Escherichia coli growth during placement of nephrostomy tube had same microorganism developed prior to 3rd session. None of patients with positive urine cultures had clinical signs of urosepsis.

CONCLUSIONS: Most patients with a nephrostomy tube have sterile urine thus don't need prophylactic antibiotics before SWL. However, microorganisms may occur during SWL, therefore obtaining urine cultures may be of benefit before and after each session.

Eur Urol Suppl 2014; 13(7) e1527
S191: The evaluation of renal parenchymal scarring using static renal scintigraphy after percutaneous nephrolithotomy operations

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INTRODUCTION & OBJECTIVES: This prospective clinical study aimed to analyze whether operative techniques and other variables related to patient and renal stone characteristics affect potential renal parenchymal damages. In addition, degree of possible damage in percutaneous nephrolithotomy (PNL) operations using scintigraphic imaging techniques, were also evaluated.

MATERIAL & METHODS: The study population comprised 64 patients who underwent PNL operations between June 2012 and April 2014. None of the patients showed renal parenchymal scarring in the preoperative static renal scintigraphy. Data of the operated renal units, renal stone burden, route and number of entries, dilation techniques, duration of surgery, preoperative and postoperative glomerular filtration rate (GFR) and relative dimercaptosuccinic acid (DMSA) uptakes as well as the changes in hemoglobin values were recorded and analyzed for all patients.

RESULTS: Among 64 patients, 37 (57.8%) were males and 27 (42.2%) were females. Mean age of the study population was 44 years (range: 19-75 years). In 11 (17.1%) cases, renal scarring in the 3rd-month DMSA scintigraphy, were detected. When the patients with and without renal scarring were compared regarding their preoperative and postoperative GFR values; no statistically significant difference between the groups was noticed (p˃0.05). Similarly, when postoperative relative DMSA uptake values on operated kidneys were compared with preoperative relative DMSA uptake values on the same kidneys; no statistical significancy was seen. When preoperative relative DMSA uptake values between the patient groups with and without renal scarring were compared; no statistically significant difference was observed (p>0.05). The clearance rate of renal stones was 79% in patients with renal scarring, while it was 88% in patients without renal scarring (p<0.05). Mean postoperative hemoglobin value was significantly lower than preoperative value (p <0.05). However, no statistically significant difference was observed regarding other laboratory parameters.

CONCLUSIONS: Although some other studies indicated that PNL affected renal function in terms of scintigraphic parameters and GFR values, we did not observe any significant difference. So, in current trial, significant loss in renal function after PNL operations was not observed. Thus, PNL operations should be regarded as safe, but still, risk of loss of kidney function should always be considered, and this possibility should be minimized with optimum care in PNL surgeries.

Eur Urol Suppl 2014; 13(7) e1528
S192: Cad-rirs: The novel training modality of retrograde intrarenal surgery for stone disease (rirs)-*cret (cadaveric research on endourology training) study group

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INTRODUCTION & OBJECTIVES: Flexible ureteroscopy (fURS) has gained popularity and widespread use in recent years. The aim of study was to evaluate use of fresh-frozen cadavers as initial training models for flexible ureteroscopy in a group of urologists who were inexperienced in retrograde intrarenal surgery.

MATERIAL & METHODS: Twelve urologists who participated the ISUS (International School of Urologic Surgery) RIRS and PNL course enrolled the study under supervision of 9 mentors. Female amputated fresh-frozen cadavers (n = 2) were placed in a dorsal lithotomy position with a radiolucent table. The bladder was entered with a cystoscope, and a 0.038-inch hydrophilic guidewire was passed into the renal pelvis with fluoroscopic guidance. A ureteral access sheath (Boston Scientific Navigator™ 11/13Fr) was placed to allow for optimal visualization and manipulation. A 8.5-Fr digital flexible ureteroscope (Karl Storz Flex-XC) was used for navigation of the collecting system (Figure 1). 4 mm stone was placed into the lower pole calyx via ureteral access sheet under vision of fURS. Psychometric analysis using the numbers was used to evaluate the satisfaction and efficiency of RIRS training model. Meanings of the numbers were as follows; 1, very low (much less than my expectations), 2, low (below my expectations), 3, medium (meets expectations), 4, high (above expectations), 5, very high (far above expectations). The time duration of procedure performed by trainees was measured. The steps included putting the fURS tip into the access sheath, navigation of all pelvicalyceal anatomy, finding the stone at the lower pole and relocation to ureteropelvic junction (UPJ).

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<thead>
<tr>
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<th>Age &lt;28 days</th>
<th>Age &gt;28 days</th>
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<tr>
<td>n</td>
<td>48.</td>
<td>27.</td>
</tr>
<tr>
<td>Median</td>
<td>9.</td>
<td>45.5.</td>
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<tr>
<td>Mean</td>
<td>11.69</td>
<td>46.</td>
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<tr>
<td>Mean Early followup (n, days)</td>
<td>35 cases, 10.8 days</td>
<td>18 cases, 9.06 days</td>
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<tr>
<td>Mean Late followup (n, days)</td>
<td>10 cases, 182.5 days</td>
<td>8 cases, 208.5 days</td>
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<tr>
<td>Early adhesion (%)</td>
<td>14.3%</td>
<td>44.4%</td>
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<tr>
<td>Late adhesion (%)</td>
<td>20%</td>
<td>50%</td>
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</table>
RESULTS: Mean age was 37.4 (28-55). Each trainee completed the RIRS course with a success. The mean duration time of the procedure was 3.5 (1.2-7.4) min. The mean values of analysis were; suitability of education content, 4.2, training satisfaction, 4.2, contribution to your knowledge, 4.2, eligibility of physical environment, 4.0, satisfaction from organization, 4.2, education materials, 3.6, eligibility of training methods, 4.3, suitability of training period, 3.6. There was a positive feedback from all the individuals regarding the understanding of the pelvicalyceal anatomy, the endoscopic and fluoroscopic orientation within the renal cavities, the 3-D spatial relationships, and the handling of the flexible instruments. Subjectively, participants noted an increase in confidence performing RIRS especially when the second session was completed.

CONCLUSIONS: CAD-RIRS meets the expectations and above expectations as a novel training modality for urologists, however, it is a useful training modality for urologists who are interested in RIRS for stone disease as a starting point.

Eur Urol Suppl 2014; 13(7) e1529
S193: Safety and efficacy of ureterorenoscopy and Holmium: YAG laser lithotripsy in patients on anticoagulant or antiplatelet therapy

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INTRODUCTION & OBJECTIVES: The development of thinner and atraumatic ureteroscopes allows for easier insertion and smooth passage with lower risk of urothelial injury and bleeding. A proportion of patients with cardiovascular disease undergoing ureteroscopic stone management are on anticoagulants or antiplatelet drugs. Discontinuation of such medication may increase the risk of thrombotic events. We performed a systematic review to assess the safety and efficacy of ureterorenoscopy and Holmium: YAG laser lithotripsy in this population.

MATERIAL & METHODS: A systematic review was performed using published studies between March 1998 to May 2014 with PubMed, Medline, EMBASE and CINAHL databases. We included all studies investigating complication rate and efficacy of flexible and semi-rigid ureteroscopic laser lithotripsy for ureteric or renal stones on patients on anticoagulants or antiplatelet agents. Studies on patients with other bleeding diatheses were excluded.

RESULTS: We screened 210 abstracts and found 4 studies which met the inclusion criteria reporting on 236 patients. All were retrospective cohort studies while no randomised controlled trials were found. Of all patients, 155 (65.7%) were on aspirin, 59 (25%) on warfarin and 22 (9.3%) on clopidogrel. The mean stone size was 13.2mm (range: 5-35mm). Complete stone clearance was achieved in 94.1% of cases. No major complications or deaths were reported while the incidence of minor complications (Clavien-Dindo classification grade I/II) was 17.9% (n=42). No procedures were abandoned due to obscured operative view as a result of bleeding. Changes between pre-operative and post-operative haemoglobin concentration were insignificant and no patients required blood transfusion.

CONCLUSIONS: Flexible or semi-rigid ureteroscopic Holmium: YAG laser lithotripsy of ureteric and renal stones may be performed safely on patients on antiplatelet or anticoagulant treatment with a very low associated complication risk and excellent stone clearance rate and with no need for discontinuation of medications. Randomised controlled trials are needed to strengthen the evidence for further recommendations.

Eur Urol Suppl 2014; 13(7) e1530
INTRODUCTION & OBJECTIVES: Flexible nephroscopy is an important device in the treatment of staghorn renal calculi to reach peripheral calices. In this study we aimed to present our experience with flexible nephroscopy and fluoroscopy guided additional access creation for staghorn renal calculi.

MATERIAL & METHODS: A retrospective analysis of patients with staghorn renal calculi treated with multiple percutaneous renal tracts created with the guidance of flexible nephroscopy and fluoroscopy was done. Additional tracts were performed with combined flexible nephroscopy and fluoroscopy guidance. Flexible nephroscopy was used to help to target the calix and precise the safety of access.

RESULTS: Additional percutaneous renal access was achieved using combined flexible nephroscopy and fluoroscopy guidance in 26 patients with complete staghorn (n: 21) and partial staghorn (n: 5) kidney stone. The cumulative stone size was measured as 59.3 mm. The mean procedure, fluoroscopy and hospitalization time were 91.5 minutes, 3.4 minutes, and 2.7 days, respectively. Postoperative hematocrit drop was measured as 4.96 ± 3.8. Upper and lower calix was most common primary access tracts in 11 and 15 patients, respectively. Stone free status was achieved in 22 patients (84.6%) with mean 2.1 ± 0.3 tract number. Postoperative complications were observed in 6 patients (23.1%).

CONCLUSIONS: In the requirement of additional access for staghorn renal calculi usage of flexible nephroscopy adjacent to fluoroscopy increases the safety of the procedure by confirmation of precise renal access.

Eur Urol Suppl 2014; 13(7) e1531
INTRODUCTION & OBJECTIVES: Pelvic kidney stones remains a unique challenge to the endourologists. Treatment options include open surgery, extracorporeal shockwave lithotripsy, percutaneous nephrolithotomy, retrograde intrarenal surgery, and laparoscopy assisted percutaneous nephrolithotomy. As a minimal invasive option, laparoscopy assisted percutaneous nephrolithotomy can decrease the risk for the bowel injury. We describe our experience with an alternative approach, laparoscopy assisted percutaneous pyelolithotomy, to treat a staghorn stone in a patient with left pelvic kidney.

MATERIAL & METHODS: A 10-year-old boy presented with dull abdominal pain. Three-dimensional computed tomography and retrograde pyelography showed opaque staghorn multiple calculus in a left side ectopic pelvic kidney with grade III hydronephrosis. Laparoscopy assisted pyelolithotomy and percutaneous extraction of calyceal stones through the pelvis was performed to remove the stones.

RESULTS: Stones were located in pelvis renalis (3x2 cm) and multiple calyces in different diameters (2x1.5, 2x1, 1x1.5, 1x1, and 1x1 cm). Three trocars used (12+5+5) for laparoscopy procedure. Intracorporeal air pressure was 12 mmHg during laparoscopy and 8 mmHg during percutaneous pyelolithotomy. Total operation time was 230 min including laparoscopy procedure- time from veress needle insertion to percutaneous stone extraction- (65 min) and percutaneous pyelolithotomy (125 min). There was no peroperative or postoperative complication. All stones were extracted according to final intra-operative nephroscopic and fluoroscopic inspection of the pyelocalyceal system, which was confirmed by postoperative plain film and ultrasonography. Patient was discharged on postoperative 3rd day.

CONCLUSIONS: Laparoscopy assisted percutaneous pyelolithotomy is a reasonable option for treatment of ectopic kidney stone, will likely maintains an important role in stone treatment for congenitally abnormal kidneys.
S198: Laparoscopy assisted micro-percutaneous nephrolithotomy in a pelvic kidney

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INTRODUCTION & OBJECTIVES: Pelvic kidney stones remains a unique challenge to the endourologists. Treatment options include open surgery, extracorporeal shockwave lithotripsy, percutaneous nephrolithotomy (PCNL), retrograde intrarenal surgery, and laparoscopy assisted percutaneous nephrolithotomy. As a minimal invasive option, laparoscopy assisted percutaneous nephrolithotomy can decrease the risk for the bowel injury. We report our experience with the use the recently described micro-PCNL via laparoscopically to treat a pelvis renalis stone in a patient with left pelvic kidney.

MATERIAL & METHODS: An 18-year-old man presented with dull abdominal pain and hematuria. Three-dimensional computed tomography and retrograde pyelography showed opaque pelvis renalis stone in a right side ectopic pelvic kidney with grade I hydronephrosis. Laparoscopy assisted micro-PCNL was performed to fragmentation the stone.

RESULTS: Stone was located in pelvis renalis and 18x13 mm in diameter. Two trocars used (10+5) for laparoscopy procedure. Intracorporeal air pressure was 12 mmHg during laparoscopy and 8 mmHg during micro-PCNL procedure. Total operation time was 105 min including laparoscopy procedure-time from veress needle insertion to percutaneous access needle insertion- (25 min) and micro-PCNL (80 min). There was no peroperative or postoperative complication. Stone was fragmented until become less than 1 mm which was checked by nephroscopic and fluoroscopic inspection. Also, it was confirmed by postoperative plain film and ultrasonography. Patient was discharged on postoperative 1⁰ day.

CONCLUSIONS: Laparoscopy assisted micro-PCNL is a reasonable option for treatment of ectopic kidney stone, will likely maintains an important role in stone treatment for congenitally abnormal kidneys.

Eur Urol Suppl 2014; 13(7) e1533
INTRODUCTION & OBJECTIVES: Horseshoe kidney is a common seen fusion anomaly. It is seen nearly 1 in 400 of the general population and it is related with kidney migration problem before the 8th gestational week. Most of the patients with this anomaly are detected incidentally. But sometimes horseshoe anomaly causes infections, stone formations, obstructive stasis related with drainage problems may be seen. The sonographic diagnose is difficult, computerised tomography(CT) and intravenous urography (IVU) are useful techniques. This anomaly is usually associated with kidney calculus. Bilateral pelvic ectopia is a rarely seen form of horseshoe kidney and according to our knowledge it hasn’t been reported before in the literature. In our case the patient with bilateral pelvic ectopia of horseshoe kidney presented with symptoms of infravesical obstruction.

MATERIAL & METHODS:

A 63 year-old male patient admitted with obstructive symptoms lasts for nearly 2 years. There was infection in urinalysis result and creatinine level was 0.9mg/dl. Pelvic ectopic horseshoe kidney is clearly seen on IVU (Figure 1). According to CT; there were bilateral pelvic horseshoe kidney, multiple stones in bladder and a 15 mm diameter calculus in the pelvis of right kidney, also a 20 mm-diameter diverticulum in bladder (Figure 2).

RESULTS: The uroflowmetry result was obstructive. Postvoiding residual volume was 150cc and the PSA level was 3.69 ng/dl. According to the urinary system ultrasonography, there was no hydronephrosis and the prostate was 67 grams. We performed transurethral resection of prostate and endoscopic cystolithototomy. On postoperative 3rd day, the urethral catheter was taken and the patient was discharged. Retrograde intrarenal surgery was planned for the kidney stone.

CONCLUSIONS: Horseshoe kidney and pelvic ectopia are common seen anomalies. But associated form is so rare. Also these anomalies make difficult to perform operations.

Eur Urol Suppl 2014; 13(7) e1534
S202: Association between urinary stone disease and perirenal tissue thickness

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INTRODUCTION & OBJECTIVES: Urinary stone disease is an important morbidity. Metabolic factors such as obesity and diabetes mellitus have been associated with stone disease. Because obesity and increased body mass index, which are characterized by thickening of subcutaneous and visceral tissue, are associated with kidney stones, we investigated subcutaneous and perirenal tissue thickness and stone size in patients with kidney stone disease and compared them with healthy subjects.

MATERIAL & METHODS: A total of 209 subjects who had undergone a stone computerized tomography protocol due to urological symptoms between February 2010 and March 2012 were included.

RESULTS:

No significant differences in age or sex between patients and control subjects were observed. Similarly, no significant differences between the study and control groups were observed in terms of the thickness, area and density of subcutaneous tissue, density of visceral tissue, urinary pH, or neutrophil and lymphocyte counts. The visceral tissue area was significantly larger (p = 0.014) and the neutrophil/lymphocyte ratio was significantly elevated (p = 0.021) in patients with kidney stones compared to those in controls. The perirenal tissue area of the kidney with a stone increased significantly compared to the opposite kidney without stones (p = 0.021).

<table>
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<tr>
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<th>Kidney Stone +</th>
<th>Kidney Stone -</th>
<th>p</th>
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<tbody>
<tr>
<td>Thickness of SC tissue</td>
<td>2.24 ± 0.84</td>
<td>2.29 ± 0.98</td>
<td>0.74</td>
</tr>
<tr>
<td>Median (Min-Max)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Area of SC tissue</td>
<td>195 (32-639)</td>
<td>213 (20-547)</td>
<td>0.83</td>
</tr>
<tr>
<td>Density of SC tissue</td>
<td>101 ([107]-[110])</td>
<td>103 ([109]-[110])</td>
<td>0.38</td>
</tr>
<tr>
<td>Area of visceral tissue</td>
<td>159 (9.3-384)</td>
<td>121 (11-266)</td>
<td>0.014</td>
</tr>
<tr>
<td>Density of visceral tissue</td>
<td>96 (-117-107)</td>
<td>93 (-121-106)</td>
<td>0.076</td>
</tr>
<tr>
<td>Urinary pH</td>
<td>5.5 (5-8.5)</td>
<td>5 (5-8.5)</td>
<td>0.097</td>
</tr>
</tbody>
</table>
CONCLUSIONS: The results suggest that an increased surface area of perirenal visceral adipose tissue detected by imaging studies might be a risk factor for the development of kidney stones. However, prospective studies with a larger cohort are needed to translate our results to clinical practice.

Eur Urol Suppl 2014; 13(7) e1535
S204: Extraordinary complication of ureterorenoscopy: Subcapsular renal hematoma

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INTRODUCTION & OBJECTIVES: Subcapsular renal hematoma without etiology of bleeding diathesis, trauma, ESWL or percutaneous renal access, is relatively uncommon condition, reported with the association of renal mass, rupture of renal cyst, arteriovenous fistula, arteritis. Apart from that, some medication like NSAID or anticoagulants and metastatic gestational trophistic tumor or uncontrolled hypertension cause spontaneous SRH. In this case, we reported a patient with SRH, who has no other medical condition and history of illness, after URS.

MATERIAL & METHODS: A 37 year-old female patient was admitted to the emergency room with a right flank pain. She had endoscopically operated for the right ureteral stone, 2 days before. The patient had no previous illness other than ureteral stone and no medication. At her endoscopic operation of right ureteral stone, 1x1.5 cm, stone burden in the ureter completely removed, but after admission to the emergency room hemtocrite and hemoglobin values were 31 and 10, respectively. Her blood pressure, heart rate and body temperature were 110/60, 86, 36 degree, respectively. Renal ultrasound showed that enlarged right kidney with SRH.

RESULTS: After the detection of SRH, computerized tomography was evaluated as Grade 1 renal injury and there was no contrast extravasation. Patient did not mention about abdominal blunt injury and there was no bruising on her body. On the other hand, her body temperature was increased to 39.5 C inspite of cold compression and antipyretic medication. Consequently blood and urine culture sampled and IV broad spectrum antibiotic was given. After that, fever was relieved but the hemotocrite was diminished to 28. Repeated hematocrite values after 2, 4, 6, 12 hours later were 28, 29, 28, 28, respectively.

After stabilization of vital signs, ureteral doble J catheter was inserted to relieve right flank pain. For this reason, patient flank pain and general status were immediately improved. Macroscopic hematuria resolved at 2 days but microscopic hematuria resisted until day 7 of bedrest.

CONCLUSIONS: Renal subcapsular space is a potential area where fluid can accumulate, lead to compression of the renal parenchyma. SRH are generally related to kidney trauma or iatrogenic procedure like ESWL and PCNL. The etiologies of spontaneous SRH include tumors, vascular diseases, infections, cystic diseases, hydronephrosis, preeclampsia and blood dyscrasias. On the other hand, rarely ureterorenoscopic intervention may cause SRH.

Eur Urol Suppl 2014; 13(7) e1536
**S205: Complications of the patients who underwent percutaneous nephrolithotomy and the factors that effect complications**

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**INTRODUCTION & OBJECTIVES:** PNL which is the gold standard of the renal stone treatment actually, has a marked success rate, but it must be kept in mind that it has complications including death. In this study complications of the patients who underwent PNL and the factors that effect complications were investigated.

**MATERIAL & METHODS:** 1750 patients (1055 male/695 female) who underwent PNL between November 2003 and June 2011 were analysed retrospectively. Minor complications like blood transfusion, fever, extended urine drainage and major complications like bleeding requiring arterial embolization, perirenal hematoma, hemo-pneumothorax, pleural damage, colonic perforation, urosepsis, death also the risk factors (age, sex, creatinin level, previous operation story, hydronephrosis level, stone area, stone location, opasification degree, experience of surgeon, calix access performed, access number, intercostal accesses) that can effect complications were investigated. Results were evaluated with Shapiro Wilk, Kruskal Wallis, Mann Whitney, Chi Square and Fisher’s Exact test.

**RESULTS:** Bleeding requiring blood transfusion, bleeding requiring selective arterial embolisation, perirenal hematom, hemo-pnomotorax and colonic perforation were seen in 221 (%12,6), 7 (%0,4), 17 (%0,9), 32 (%1,8), 4 (%0,2) of the cases respectively. Serious urosepsis in 3 patients and uncontrolled bleeding in 1 patient were occured and these patients died. Stone volume, stone localisation, axess site, axess number, presence of staghorn calculi, surgeon experience and operation time were found as factors affecting complication number, while age, sex, presence of solitary kidney, presence of horse-shoe kidney, opacification of stone, costal puncture, presence of hydronephrosis, preoperative creatinine level, presence of preoperatif infection and story of surgery were found not effecting number of complications. Also the rate of blood transfusion, which is the most common complication of PNL, was increased by factors like stone location (complex stones), larger stone area, staghorn stone, multiple accesses, upper caliceal puncture, extended operation time; and was decreased by factors like horse-shoe kidney and experienced surgeon.

**CONCLUSIONS:** PNL which is the gold standard method for treatment of kidney stones can be performed with high success rate, it must not be disregarded that there can be major complications like death.

Eur Urol Suppl 2014; 13(7) e1537
INTRODUCTION & OBJECTIVES: One center retrospective 12 years of treatment results were analyzed to show the ESWL treatment effects in ureteric stones.

MATERIAL & METHODS: 2836 patients who had one ureteric stone and were treated by ESWL in between June of 1999 and March of 2011 were analyzed retrospectively. Only the patients who had 5-15 mm sized and radioopaque stones were included in the research. The patients who had birth malformation causing urinary obstruction, pregnancy, obesity, BMI > 30, nonfunction kidney, high grade hydronephrosis, high blood creatin level, bleeding diasthesis, serious urinary infections were omitted from the research. All practices were done by the same urologist and with the same Multimed 9200® ESWL device (Elmed). ESWL treatment was performed at supine position for proximal ureteric stones and at modified prone position for middle and distal ureteric stones. After 3 sessions insisting radiological stone image was accepted as failure in treatment.

RESULTS: It was found that the success of ESWL treatment in proximal ureteric stones is %85.1, in middle and distal ureteric stones is respectively %83.9 and %88.4 (p:0.257). The success in proximal, middle and distal ureteric stones which are smaller than 10 mm is %90, %85.8, and %90.4 (p:0.7). At the same time the success ratio in the stones which are bigger than 10 mm was found %75.3, %81.3 and %81.6 (p:0.9).

CONCLUSIONS: Despite the exiting developments in endourology, the treatment of stones with ESWL at any localization sized between 5-15 mm is still a successful treatment method.

Eur Urol Suppl 2014; 13(7) e1538
S207: Vesical calculus formation on non-absorbable sutures used for open inguinal hernia repair

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INTRODUCTION & OBJECTIVES: Iatrogenic injuries to the urogenital tract are rare with the bladder being the organ most affected. Bladder injuries can be broadly divided into internal and external injuries occurring during cystoscopic procedures or open and laparoscopic surgery in the pelvis respectively. We describe a case of a vesical calculus that formed on non-absorbable sutures that were used to repair an inguinal hernia. Bladder injuries can be broadly divided into internal and external injuries occurring during cystoscopic procedures or open and laparoscopic surgery in the pelvis respectively. Objective: To present a very rare case of a vesical calculus formed on non-absorbable suture used in an open hernia repair; and review the literature in relation to the incidence, investigations and management of the case.

MATERIAL & METHODS: Systematic review of the literature in MEDLINE, Web of Science and Cochrane Databases with Mesh terms vesical calculus, suture, inguinal hernia repair, foreign bodies, iatrogenic. The reviewed data was compared to our case in terms of Pre-operative Investigations, Operative approach and similar published cases.

RESULTS: Case report: A 45 years old male presented with frank haematuria and dysuria 2 years following an open left inguinal hernia repair. A CT urography showed a vesical calculus adherent to the left anterio-lateral wall of the bladder. Cystoscopy revealed that the calculus formed on non-absorbable sutures. Cystolapaxy was performed followed by cystoscopic excision of the sutures. The patient’s post-operative course was uneventful. To the best of our knowledge this is the first reported case of a vesical stone as a complication of open hernia repair. Increased reports on iatrogenic bladder injuries surfaced since the advent of newer techniques in pelvic and urethral sling surgeries. In addition, presence of foreign bodies in the bladder especially iatrogenic is very rare and cystoscopic management is in keeping with the published literature.

CONCLUSIONS: Iatrogenic bladder injuries can have a delayed presentation with urological symptoms. These cases require investigation to treat the underlying cause rather than the presenting complaint alone. Foreign bodies in the urinary bladder always acted as a nidus for formation of a calculus. It is, however, rare for sutures used to repair an inguinal hernia to involve the urinary bladder wall. The patient most likely had a full bladder at the time of hernia repair or the bladder was part of the contents of the hernia sac. This case illustrates the need to ensure that the bladder is empty prior to pelvic surgery and for surgeons to have a good understanding of inguinal anatomy to avoid injuring the contents of the hernia sac. Cystoscopic management of bladder stones secondary to the presence of foreign bodies is safe and effective technique.

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INTRODUCTION & OBJECTIVES: Congenital renal anomalies are common hereditary diseases. Percutaneous Nephrolithotomy (PCNL) has some difficulties in Horseshoe kidney, L shaped kidney and Polycystic Kidney Disease (PKD) patients with renal stone. Aim of this study was to access outcome of PCNL in anomalous kidneys.

MATERIAL & METHODS: A total of 40 patients with Horseshoe kidney, L shaped kidney and PKD underwent PCNL between 2004-2014. Totally 36 patients presented with Horseshoe kidney, 1 patient with L shaped kidney and 3 patients with PKD. Six patients in Horseshoe kidney group had bilateral renal stone, 1 patient had solitary kidney after heminephrectomy. Patient with L shaped kidney had a staghorn stone in the upper part of the fused kidney. Of the totally 3 patients with PKD 1 patient had solitary kidney. One patient in PKD group presented with one stone within the renal pelvis and 2 patients had staghorn stone. Information about the stone size in Horseshoe kidney group was not well documented. Preoperative CT scan performed in all patients. PCNL in the prone position after dilating with amplatz type renal sheaths performed in all patients.

RESULTS: Second look PCNL was performed at one patient with Horseshoe kidney and at 1 patient with PKD. Postoperative blood transfusion required in 3 patients with Horseshoe kidney (8.3%) and in all patients with PKD (100%). Late bleeding after removal of nephrostomy catheter was observed in one patient with Horseshoe kidney at the fifth postoperative day. Immediate angiography was performed, but bleeding stopped spontaneously. Stone-free rates were accessed by CT in all patients after one month. PCNL achieved stone free rates of 83.4% in patients with Horseshoe kidney and 100% in those with PKD and L shaped kidney.

CONCLUSIONS: It seems that PCNL could be done with safety in renal anomalies by omitting preoperative CT scan and PKD patients has a great risk of perioperative bleeding.
S210: Influence of diet quality on lower urinary tract symptoms

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INTRODUCTION & OBJECTIVES: There is relative paucity of literature evaluating the association between diet quality (DQ) and lower urinary tract symptoms (LUTS). The goal of the study was to evaluate the association between DQ and the prevalence of LUTS. We hypothesized that healthy balanced DQ would be associated with lower LUTS.

MATERIAL & METHODS: Research comprised 852 men > 40 years of age of which 724 (85%) completed questionnaire. DQ was assessed using 10 components United States Department of Agriculture (USDA) (cholesterol, dairy, fat, fruit, grain, protein, saturated fat, sodium, variety and vegetables) Healthy Eating Index (HEI). We used bivariate analysis to examine rate of LUTS among men with poor vs. good diet. Multivariate regression analysis was applied to determine impact of demographic samples in men with or without LUTS and controlling for age, urban/rural population, smoking status, diabetes, alcohol intake, obesity and exercise.

RESULTS: After exclusion of 31 men with prostate cancer, our study included 693 men, with mean age of 59.1±13-2 years, of whom 139 (20%) reported at least 1 symptom suggestive of LUTS (63 storage, 44 voiding and 32 both symptoms), whereas 554 men were free of symptoms. Men with LUTS were more likely to be rural (p<0.0001), nonsmokers (p<0.0001), to have diabetes (p<0.0001), to be older (p<0.0001), to have higher PSA (p<0.0001) and to have diagnosis of enlarged prostate (p<0.0001). Moderate and vigorous physical activity and alcohol intake were more common in men without LUTS (p<0.0001). Men with LUTS consumed less dairy products (p=0.005) and had less variety in their diets (p=0.002) and overall, had less nutritious diets by USDA standards (p=0.03). We observed higher rates of LUTS among men with poorer dietary intake of dairy (22.4% vs. 16.4%) (p<0.0013), and among men with poor protein intake (24.6% vs. 17.0%) (p=0.012), as well as among those with overall poor diet (25.8% vs. 17.8%) (p=0.018) and with little dietary variety (26.2% vs. 17.6%) (p=0.001). After controlling for age, rural/urban population, diabetes, alcohol, smoking, exercise and obesity, the odds ratios (OR) of LUTS in those with least healthy diet was 1.7 (95% confidence interval (CI) = 1.05 - 2.09). On multivariate analysis, an unhealthy diets (OR 2.4; 95% CI = 1.05-2.09), rural population (OR 2.4; 95% CI = 1.6 -3.5) and older patients (> 60 years) (OR 2.4; 95% CI= 1.6 – 3.15), were associated with higher LUTS degree, whereas alcohol was slightly protective from LUTS (OR= 0.67; 95% CI = 0.48 – 0.93).

CONCLUSIONS: This study demonstrated an association between consuming less healthy diet and LUTS after controlling for other modifiable risk factors. However, further investigation into the mechanism of dietary LUTS prevention is warranted.

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S211: Are Lower Urinary Tract Symptoms (LUTS) influenced by Metabolic Syndrome (MS)?

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INTRODUCTION & OBJECTIVES: Middle-aged men often have LUTS resulting from benign prostatic hyperpasia (BPH). The correlation between MS and BPH remain debatable. The aim of the present study is to investigate the impact of MS on LUTS in middle-aged men receiving a healthy checkup.

MATERIAL & METHODS: Males aged > 45 years who voluntary underwent the medical checkup were enrolled in this study. All participants were stratified into 2 groups by the presence of 3 or more risk factors including elevated body mass index (BMI), waist circumference (WC), fasting serum glucose and HbA1C, blood pressure, serum triglyceride, total and high density lipoprotein cholesterol. Prostate volume (PV) and prostate-specific antigen (PSA) level were used for subgroups analysis.

RESULTS: Between January 2010 and December 2012, 354 men with men age 55.6±9.72 years, were enrolled into the study. According to reported criteria of MS, 108 (30.5%) had MS and formed the study group, whereas 246 (69.5%) MS-negative men formed a control group. Anthropometries including BMI and WC, as well as metabolic outcomes and percentage of hypertension were higher in MS vs. non-MS group (p<0.0001). The MS-group had a lower International Prostate Symptom Score (IPSS) (7.83±6.63 vs. 6.85±6.52) (p=0.05), lower severity of weak stream (1.24±1.60 vs. 0.95±1.50) (p=0.021) and lower severity of IPSS grading (p=0.014). In the larger PV (> 30 mL) and higher PSA (>0.93 ng/mL), total IPSS, storage and voiding score, urgency and incomplete emptying were lower in the MS group (p<0.05). However, in the small PV group, the MS and non-MS group were comparable on all factors. The negative association between voiding score, storage score, severity of LUTS and MS became particularly pronounced as the number of MS factors increased (p for trend < 0.001). However, the incomplete urinary emptying score was again lower in MS men with 5 MS risk factors in comparison with men without MS. Compared to the non-MS group, the odds ratio (OR) for moderate to severe LUTS was significantly lower in men with 3 (OR 0.61; 95% confidence interval [CI] 0.40-0.94) or 5 (OR 0.32; 95% CI 0.11-0.95) MS risk factors. Finally, men in the MS group were less likely to experience moderate to severe LUTS (OR 0.58; 95% CI 0.41-0.83).

CONCLUSIONS: We confirmed that MS had favorable effects on LUTS, including voiding and storage symptoms in healthy middle-aged men. This beneficial effect was most significant in men with enlarged prostate and/or high PSA level.

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S212: Silodosin (SIL) in the management of patients (pts) in Acute Urinary Retention (AUR) from Benign Prostatic Hyperplasia (BPH)

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INTRODUCTION & OBJECTIVES: BPH is the main cause of AUR in men. Trial without catheter (TWOC) after a short course of an alpa-blocker is now the standard care for AUR. TWOC involves removing the catheter after 3 days, which allows up to 40% of pts to void successfully. The aim of the study was to determine the safety and efficacy of SIL in the treatment of AUR related to BPH.

MATERIAL & METHODS: 37 men older than 50 years with 1st episode of AUR, and with retention urine volume (RUV) between 400 mL and 1.000 ML after cateterization received SIL 8.0 mg once daily for 3 days followed by TWOC. Clinical details including LUTS in the month before AUR (grading by IPSS), medical history, history of constipation within the last 2 weeks, DRE, serum creatinine and PSA were noted. In addition, pts were investigated before TWOC with transabdominal ultrasound combined with TRUS to detect hydronephrosis, hydroureter, prostate volume (PV), median lobe enlargement (defined as intravesical prostatic protrusion (IPP) > 10 mm), and RUV. The pts were considered to have successful TWOC after a satisfactory catheter-free void, defined as maximum flow rate (Qmax) of > 5 mL/s, > 100 mL voided volume, and PVR volume < 150 mL. If the pt re-experienced AUR or if the PVR volume was > 150 mL, he was re-catheterized and considered to have a failed TWOC. All pts with successful TWOC, continue SIL and followed up at 2 weeks with uroflowmetry, PVR volume, and IPSS. Pts who failed TWOC were offered the surgical option of a TURP or other form of minimally invasive therapy of BPH.

RESULTS: 30 pts completed the trial protocol. The mean age was 64.5 ±9.3 years, duration of LUTS 5.7±3.4 months, duration of urinary retention 28.1 ±22.9 hours, RUV 758±154 mL, PV 42.3±7.9 mL and IPP in 15 (50%). The success rate of TWOC was 70% (21). During the period of 2 weeks after TWOC, there was no recurrence of AUR in successful cases. In successful cases mean age was lower (61.9±7.3 vs 69.1±8.7 years, P =0 .001), PV was lower (40.1±8.1 vs 47.5±8.2 mL, P<0.001), the volume of urine collected at 1st cateterization was lower (728±153 vs 820±151 mL, P=0.023), and the IPSS score was lower (25.5 ±2.4 vs 26.4 ±2.2, P=0.031). On multivariate analysis pts with > 800 mL RUV had greater odds of failure (4.6, 95% CI 1.08-20.2) compared to those with > 800 mL (p=0.038). Pts with IPSS > 25 had greater odds of failure (4.6, 95% CI 1.05-18.8, p=0.042). Although age > 65 years (4.4, 95% CI 0.99-20.0, P=0.051) and PV > 45 mL (3.0, 95% CI 0.6-15.1, P=0.18) had greater odds of failure, they were not statistically significant. The Qmax (12.4±5.6 vs 14.8±5.7 mL/min)(p<0.001) and voided volume (211±42 vs 241 ±38 mL)(P<0.004) were found to be higher after 2 weeks follow-up, whereas PVR volume (80±36 vs 60±27 mL (P<0.001) and iPSS (25.7±2.5 vs 23.0 ±1.79(p<0.001) were lower than at TWOC. There were no self-reported side effects during administration of SIL.

CONCLUSIONS: SIL significantly increases chances for successful TWOC after AUR. URV > 800 mL and IPSS > 25 before AUR were predictors of failure of TWOC after AUR secondary to BPH. We plan to confirm the findings of this pilot study in a prospective randomized, double-blind, placebo controlled, multicenter study.

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S215: Is prostate resistive index more effective than urodynamy in patients with transurethral prostatectomy

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INTRODUCTION & OBJECTIVES: Benign prostatic hyperplasia is the most common cause of lower urinary tract symptoms in aging men. Urodynamic examination is the gold standart method in evaluating of patients suffering from micturation problems (dysuria, urinary incontinence, neuropathic disorders, and disorders cause lower urinary tract obstruction. Although urodynamic examination is the gold standart method for diagnosis of bladder outlet obstruction not only it is an invasive procedur, but also associated with a small but important risk for significant morbidity such as urinary tract infections. We aimed to assess the use of prostatic resistive index determined by using transrectal ultrasonography for predicting infravesical obstruction as shown by urodynamic study.

MATERIAL & METHODS: In this study a total of 40 consecutive men over 50 years who presented between June 2012 and August 2013 to our outpatient department because of lower urinary tract symptoms were included. In addition to the standart urodynamic evaluation the prostatic resistive index was determined in all cases. Local ethics committee approval and written informed consent from all individuals were obtained before the study.

RESULTS: The value of prostatic resistive index measurements was not statisticaly different among individuals with or without infravesical obstruction proven by urodynamic study.

CONCLUSIONS: Our results failed to demontrate the prostatic resistive index as a useful tool for diagnosing bladder outlet obstruction.

Eur Urol Suppl 2014; 13(7) e1544
S217: The effect of tamsulosin on hours of uninterrupted sleep and quality of life in men with LUTS-BPH and nocturia as their primary complaint

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INTRODUCTION & OBJECTIVES: Nocturia is the most frequent cause of sleep disturbance in the elderly and one of the most bothersome complaints of men with LUTS attributed to BPH. Waking up during the night for voiding in less than 3 hours from bedtime is related to daytime tiredness and is thought to have a strong impact on the quality of life of men with LUTS attributed to BPH. In the present study we evaluated the effects of tamsulosin oral controlled absorption system on urinary symptoms, sleep disturbance and quality of life.

MATERIAL & METHODS: 29 male patients, mean age 69,3 years, presenting with mild to moderate LUTS (IPSS<19) and nocturia as the most bothersome symptom were enrolled in the study. At initial visit patients were asked to complete a 3-day voiding diary, the IPSS questionnaire, and also provide an estimation of time until the first nightly wake for voiding in order to evaluate the hours of uninterrupted sleep (HUS). Mean prostate volume, measured by abdominal ultrasound, was 42,1 ml and mean PSA was 2,15 ng/ml. Patients were prescribed tamsulosin and were re-evaluated with IPSS and HUS estimation within an interval of 4-6 weeks.

RESULTS: Following treatment with tamsulosin, there was a significant improvement in symptoms as mean IPSS dropped from 11,5 to 7,9 (p=0,025). With regard to quality of life assessed by question 8 of the IPSS, at baseline 31% of patients reported “mixed” feelings, while another 28% reported being “satisfied”. Following treatment with tamsulosin mean QoL score improved by 0,9 (decreased from 2,6 to 1,7) (p=0,015) while the majority of patients (62%) were self-reported as “mostly satisfied” (31%) or “satisfied” (31%). With regard to nocturia, the proportion of patients reporting ≥ 3 episodes significantly declined from 41% at baseline to 21% following treatment with tamsulosin. There was also a prolongation of HUS from 2,9 hours to 3,9 hours, translating into an additional 60 minutes of uninterrupted sleep. (p=0,002). No tamsulosin side effects were reported and none of the patients discontinued treatment due to side effects.

CONCLUSIONS: Besides its known beneficial effects on urinary symptoms, tamsulosin significantly prolongs the time until the first nightly void resulting in an improvement in the quality of life for patients with LUTS due to BPH and nocturia as their primary complaint.

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S218: The early effects of daily tadalafil on the uroflowmetric parameters

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INTRODUCTION & OBJECTIVES: Lower urinary tract symptoms (LUTS) and erectile dysfunction (ED) are both associated with increasing age and different agents are prescribed to patients. This study was conducted in order to evaluate the effects of tadalafil (5 mg daily) on symptom scores and the uroflowmetric parameters of men with ED and LUTS.

MATERIAL & METHODS: A total of 24 male patients with International Prostate Symptom Score (IPSS) greater than 7 and International Index of Erectile Function score (IIEF) lower than 26 were included in the study. Patients received daily 5 mg oral tadalafil for three days. Uroflowmetric parameters including maximum flow rate (Qmax), average flow rate (Q ave), voided urine volumes, and IPSS were recorded just before the treatment and after maximum six hours from the last dose.

RESULTS: Mean ages were 60.4 ± 9.8 (55-71) years. IPSS were 13.88 ± 4.76 before treatment. The maximum and average flow rates increased significantly (Q max from 9.09 ± 2.91 ml/s to 12.6 ± 4.8 ml/s and Q ave from 7.4 ± 2.9 ml/s to 9.1 ± 3.0 ml/s, while IPSS decreased significantly to 8.51 ± 3.24 after administration three doses of tadalafil. The voided urine volumes remained unchanged.

CONCLUSIONS: It was demonstrated that daily tadalafil improves the Q max and Q ave in patients suffering from ED with concomitant LUTS in the early period. It was also found that the patient’s symptoms regressed after that short period of treatment. Tadalafil may solely be used or in combination with standard medical therapies in patients suffering from both disorders. Larger placebo controlled studies will be beneficial to evaluate the long-term efficacy, and cost-effectiveness of tadalafil and other phosphodiesterase type 5 inhibitors.

Eur Urol Suppl 2014; 13(7) e1546
INTRODUCTION & OBJECTIVES: To objectify effectiveness of different medical treatment options by quantitative and qualitative study of medical pathomorphosis of BPH.

MATERIAL & METHODS: Prospectively 60 patients were biopptised and received for the period not less than 6 months of different medical treatment options and have been operated (retropubic prostatectomy in 2 years period, 12 men in each group) and divided into 5 groups: 1) control group patients without any medical therapy; 2) after tamsulosin treatment; 3) after finasteride treatment; 4) after combination treatment with tamsulosin and finasteride; 5) after doxasozine treatment. The morphometric analysis (microscope Olympus AX-70 Provis) have performed for the definition of parameters: the number of glands and their gaps, the average cross-sectional area of glands and their gaps (microns^2), the specific glands part for the whole epithelial tissue in relation to software and glandular component.

RESULTS: Patients in the control group were noted picture of glandular BPH in varying degrees, combined with areas of fibromuscular and stromal hyperplasia. After tamsulosin (Flosin) treatment it was documented glands with connective tissue at different stages of maturation - from granulation to rough fiber that leads to atrophy of the glands and sharp periglandular sclerosis, including the basal membrane. After treatment with finasteride there were increased secretion of typical acinar epithelium and the dramatic expansion of cystic glands. After combination treatment there were abovementioned changes in the previous observed groups. Comparative morphometric characterization of BPH tissue after various medical treatment options reflect a reduction in the number of glands in the observation group after treatment tamsulosine and/or finasteride. For example, such a measure as a specific percentage of glandular component was in the group treated with tamsulosin - 51.62%, with finasteride - 58.44%, and combination of these pharmacies - 65.98%.

CONCLUSIONS: All pharmacies led to 1,5-1,87 times statistically significant decrease in the share proportion of glandular tissue component. In group of combination tamsulosin+finasteride treatment this tissue changes were observed also as well as simultaneous decrease in the average cross-sectional glands area (at 1.52 times in both groups) and the number of glands per field (1.05 and 1.23 times, respectively). Indirect indicator of adequate morpho-functional state saved glands after treatment with tamsulosin was high relative proportion of epithelial glands, whereas in finasteride group or its combination, this figure was likely to decrease as compared with the control group and showed the marked atrophy of the epithelium in cystic dilated glands. The mechanism of reduction of glandular component of the BPH tissue in all studied groups was intense periglandular (segmental or total) lymphoid infiltration, resulting in degradation of the basal membrane, degeneration and desquamation of the epithelium.

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S220: Bioequivalence of a fixed-dose combination compared to a free-dose combination of dutasteride/tamsulosin hydrochloride

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INTRODUCTION & OBJECTIVES: The study was designed to determine the bioequivalence of a fixed-dose combination of dutasteride (DUT) 0.5 mg and tamsulosin hydrochloride (TAM) 0.4 mg and DUT 0.5 mg and TAM hydrochloride 0.4 mg given as a free combination.

MATERIAL & METHODS: This was an open-label, randomized, single dose, two-period crossover study. There were two 5-days post-dose periods of inpatient observation, separated by a 28-days washout period. Fifty healthy male subjects aged 18-45 (mean 26.5) years old with a body mass index of 20-25 kg/m² were screened, 36 randomized and 35 completed the study. Subjects were randomly assigned to one of the 2 treatment sequences: fixed combination of DUT and TAM (Duodart®) followed by a free dosing of DUT (Avodart®) and TAM (Omnic®) or DUT and TAM given as a free-dose combination followed by a fixed-combination (Duodart®). Medication was swallowed, without dissolving or chewing, with 200 mL of water of a room temperature. Upon completion of the last dosing period, the subjects were contacted within approximately 10-14 days for a follow-up. Blood samples were collected before the morning dose on Day 1 and during 16 hr after the morning dose on day 1 (0.5/1/1.5/2/2.5/3/4/5/6/7/8/10/12 and 16 hr). In addition blood samples were collected on day 2, 3 and 4 24/36/48/72 hr after the morning dose on day 1. A total of 19 blood collections in each study period were performed. For TAM, the primary endpoints were AUC (0-∞) and Cmax. For DUT, the primary endpoints were AUC (0-t) and Cmax. The secondary pharmacokinetic endpoints were tmax and Mean residence time for both DUT and TAM, AUC (0-t) and t1/2 for TAM only. Secondary endpoints included safety and tolerability of the treatment arms. This study was performed in compliance with Good Clinical Practice.

RESULTS: There was no statistically significant difference between the fixed- and free-dose combination of DUT 0.5 mg and TAM 0.4 mg in terms of all calculated mean pharmacokinetic parameters of DUT and TAM. DUT Cmax and AUC (0-t) PEs were within 5% of unity, and the 90% confidence intervals (CIs) for each regimen comparison were within the equivalence intervals: 0.8-1.25 for AUC (0-t) and 0.75-1.33 for Cmax. TAM Cmax and AUC (0-∞) PEs were within 1% of unity, and the 90% CIs for each regimen comparison were within the equivalence intervals: 0.8-1.25 for AUC (0-∞) and 0.75-1.33 for Cmax. There were no serious adverse events during the study. Two subjects experienced adverse events (AEs) – a dizziness and hypotension in the free-dose combination group and skin itch in the fixed-dose combination group. Both AEs were mild to moderate in severity and resolved without therapy.

CONCLUSIONS: The results of the study suggest that DUT 0.5 mg and TAM HCl 0.4 mg fixed combination capsule is bioequivalent to DUT and TAM given as a free-dose combination. Both treatments have high safety and tolerability.

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S221: Comparison of early versus late urethral catheter removal after transurethral resection of the prostate in patients with benign prostate hyperplasia

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INTRODUCTION & OBJECTIVES: Although urethral catheterization for bladder irrigation after transurethral resection of prostate (TURP) is an absolute necessity, there is no consensus on the timing of catheter removal. The aim of the present study was to compare the early versus late removal of urethral catheter after TURP as a surgical therapy for severe lower urinary tract symptoms due to benign prostatic hyperplasia (BPH).

MATERIAL & METHODS: A total of 91 patients who underwent TURP, after the control of bleeding, were randomized into two groups; early (postoperative 1-2 days) and late (postoperative 7 days) removal of the urethral catheter. After surgery all patients were assessed in terms of treatment success (International Prostate Symptom Score (IPSS) and Quality of Life due to urinary symptoms (QoL), uroflowmetry (maximum and average flow rate, and voided volume) and residual urine volume and morbidity (hematuria, infection, urethral stricture, irritative symptoms, requirement of re-operation) in 1, 3 and 6th months.

RESULTS: Within the study period, there was no statistical difference in terms of urodynamic studies, complications, IPSS and QoL in both groups. However, at three months maximum and average flow rates were higher in the early catheter removal group than in the late catheter removal group. Although the rate of urethral stricture at the end of the study was similar in both groups, it occurred earlier in the early catheter removal group (1 and 3 months, respectively).

CONCLUSIONS: These results suggest that surgical outcome may be similar regardless of early or late removal of urethral catheter after TURP. We have tried to shed light on a topic without consensus on the time of urethral catheterization after TURP.

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S222: Investigation of prostatic hypoxia-inducible factor-1 alfa and vascular endothelial growth factor expression in patients receiving dutasteride

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INTRODUCTION & OBJECTIVES: Benign prostatic hyperplasia (BPH) is a significant health problem for men over the age of 50. BPH is a progressive disease which can lead to serious complications such as, renal failure, urinary tract infections and hematuria. In recent years medical agents play an important role in the management of BPH. Alpha receptor blockers, 5-alpha reductase inhibitors, phytotherapy and combinations of these are used for the medical treatment of BPH. 5-alpha reductase inhibitors inhibit the enzyme that converts testosterone to dihydrotestosterone (DHT). Thus, it prevents the progression of BPH by reducing DHT which binds to nuclear receptors in prostate cells causing increased DNA synthesis and cell growth. Current 5-alpha reductase inhibitors are finasteride and dutasteride. It was shown that 5-alpha reductase inhibitors reduce the amount of bleeding during transurethral resection of the prostate (TUR-P) by suppressing angiogenesis in prostate tissue. The current trial was planned to investigate three common parameters of angiogenesis, namely hypoxia-inducible factor-1 alfa (HIF-1 alfa), vascular endothelial growth factor (VEGF) and microvessel density (MVD) in patients receiving dutasteride.

MATERIAL & METHODS: The patients who underwent TUR-P routinely received dutasteride for a month prior to surgery during the last year at our clinic. These subsequent patients were then retrospectively compared with the previous consecutive TUR-P patients without dutasteride. Any additional disease such as urinary infections, bladder stones, bladder tumor, prostate cancer, urethral catheterization, pelvic radiotherapy constitutes the exclusion criteria. The histopathological specimens of both groups were compared regarding the immunohistologicalal expressions of HIF-1 alfa, VEGF and MVD.

RESULTS: VEGF, and HIF-1 alfa values were significantly lower in the dutasteride group compared with the control group (p<0.05). Although a decrease in MVD was detected in the dutasteride group, it was not significant (p=0.205).

CONCLUSIONS: Dutasteride administration in BPH results in statistically significant suppression of VEGF and HIF-1 alfa. Administration of dutasteride in patients prior to surgery may have the potential to decrease the complications related to blood loss.

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S224: Bladder outlet obstruction or detrusor underactivity? A retrospective analysis of urodynamic parameters in frail elderly males

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INTRODUCTION & OBJECTIVES: Invasive urodynamic study is optional prior to invasive treatment options for lower urinary tract symptoms (LUTS) and benign prostatic enlargement (BPE) according to the EAU guidelines while it is recommended according to the AUA guidelines due to irreversible changes after the operation. There is also evidence that LUTS persist in almost 30% of patients after invasive treatment of BPE. Our main purpose was to analyze the urodynamic parameters with main focus on the differential diagnosis between bladder outlet obstruction (BOO) and detrusor underactivity (DUA) in males >75 years old.

MATERIAL & METHODS: Males above 75 years old without obvious bladder or prostate pathology, neurological disease or prior invasive treatment for LUTS were included in the study. Based on the indication for UDS, patients were further categorized to Group A (history of urinary retention) and Group B (refractory LUTS). Patients with linear passive urethral resistance relation (L-PURR) ≥ 3 were defined as clearly obstructed. Detrusor underactivity (DUA) was defined in the presence of a combination of L-PURR≤2 and urethral resistance factor (URA) < 29. Patients with URA value ≥29 and incomplete bladder emptying during uroflow (Bladder voiding efficiency, BVE<80%) were categorized as having both BOO and DUA.

RESULTS: From a total of 98 patients, 49% (n=48) were obstructive, 3.1% (n=3) had both BOO and DUA, 33.7% (n=33) had DUA and 14.3% (n=14) had neither BOO or DUA. In Group A (n=48) the overall diagnosis of clear BOO, BOO with DUA and pure DUA was 47.9% (n=23), 6.25% (n=3) and 43.75% (n=22), respectively. In Group B, clear BOO, pure DUA and absence of obstruction and underactivity were found in 50% (n=25), 22% (n=11) and 28% (n=14), respectively. In the total study sample, detrusor overactivity (DO) was found in 90.4%, 53.13% and 92.9% of BOO, DUA and no BOO no DUA patients, respectively. Pdetmax (p<0.0001), PdetQmax (p<0.0001), Qmax (p<0.0001), voided volume VV (p=0.001) and PVR (p=0.017) from pressure-flow data, and bladder volume at strong desire (p=0.019) and amplitude of DO (p<0.0001) from cystomanometry were found statistically significantly different between BOO, DUA and no-BOO no-DUA males (One way ANOVA test). High risk patients for post-BPH surgical treatment incontinence with concomitant passive reduced compliance and detrusor acontractility was found in 5.1% (n=5) of patients. According to our data, Pdetmax >60cmH20 + PdetQmax >45cmH20 + Qmax.

CONCLUSIONS: In our study sample, BOO was present only in almost half of elderly males with refractory LUTS or with history of urinary retention. Detrusor overactivity is a very common urodynamic observation especially in obstructed and no-BOO no-DUA males >75 years old while almost half of DUA males had also DO. Although DUA is not an absolute contraindication for surgical treatment of LUTS/urinary retention, UDS might be useful prior to invasive treatments in elderly males with LUTS or retention, especially in high expectations patients without desire to risk surgical treatment failure.

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INTRODUCTION & OBJECTIVES: Open prostatectomy (OP) is still a valid treatment option for surgical treatment of large prostates in the absence of Holmium laser enucleation. The most frequent complication of OP is intra- and perioperative bleeding. Preoperative use of dutasteride was shown to decrease vascularity and perioperative bleeding in TURP procedures. However there is no study addressing this effect on OP. The aim of this study was to evaluate whether pretreatment with dutasteride for four weeks before surgery can reduce surgical blood loss.

MATERIAL & METHODS: Data of 218 patients with BPH, underwent OP was investigated retrospectively. There were 46 patients treated with dutasteride for at least 4 weeks and rest of the patients were dutasteride naive. Age, prostate volume, PSA levels, coagulation tests, platelet counts, pre and post-operative hemoglobin levels and transfusion history were recorded. Blood loss was estimated by formula: preoperative Hb–postoperative Hb+amount of transfusion. The two groups were compared by independent samples t-test and p value of 0,05 is considered significant.

RESULTS: The groups were similar in terms age, prostate volume, platelet counts, coagulation tests and postoperative Hb levels. Preoperative Hb levels were lower in the dutasteride group. Decrease in Hb level (-1,96 vs -0,87) and amount of bleeding (-2,72 vs -1,93) was shown to be significantly lower in dutasteride group (p=0,0001). Results are summarized in table 1.

CONCLUSIONS: Our results showed that pretreatment with dutasteride for 4 weeks before OP reduces the perioperative surgical bleeding considerably. Further prospective randomized trials should be conducted to prove effectiveness of such treatment.

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S226: The effectiveness of local steroid injection after internal urethrotomy to avoid recurrence

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INTRODUCTION & OBJECTIVES: Urethral strictures are one of the most common causes of obstructed micturition in men who have a history of any endourologic procedure and there is frequent recurrence after initial treatment. Local steroid injection to the stricture region after internal urethrotomy (IU) is a compromising technique to avoid the recurrence. Whether this technique is effective and safe is still controversial. We aimed to determine the efficacy and safety of local steroids as applied with the IU procedure.

MATERIAL & METHODS: Retrospectively, a total of 83 medical records over the last six years denoting urethral stricture in men were retrieved for analysis. Data reviewed for common complications was namely: recurrence, recurrence time and steroid dosage. Metil prednisolone 40 mg injected with transurethral injection needle to the stricture region at the 5, 7 and 12 o’clock sites. The dosage increased due to the length of the stricture.

RESULTS: The mean age was 56.4 (12-83) years. Mean follow-up was 32.6 (1-78) months. Of those patients 33/83 has recurrent stenosis. 19/33 of these patients treated with local steroid injection and 14/33 had no injection. Only one patient at the steroid treated group has recurrence. Despite that 12 patients had recurrence with mean time 20.9± 5.5 at the steoid non-treated group.

CONCLUSIONS: Although lots of strategies are available, still, we do not have a suitable, single optimum solution for all the conditions. The clinical decision of stricture-recurrence-prevention techniques should be carefully tailored to every individual patient. The use of local steroids with IU seems to decrease the high stricture recurrence rate following IU. When local steroids are applied with complementary intention, the disease control outcomes are encouraging. Further robust comparative effectiveness studies are now required.

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S227: The correlation between metabolic syndrome and clinical progression in benign prostatic hyperplasia patients

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INTRODUCTION & OBJECTIVES: Benign prostatic hyperplasia (BPH) is the most common benign disease in older men. About the etiologic risk factors for the pathogenesis of BPH; it was recently reported that some parameters such as hypertension, diabetes mellitus, obesity, high serum insulin levels, and low serum high-density lipoprotein cholesterol (HDL-C) levels play important role. The components of metabolic syndrome are; type 2 diabetes mellitus, hypertension, obesity, and dyslipidemia. Because of this, we hypothesized that metabolic syndrome might play a role in the etiology and clinical progression of the disease. In the present study, we evaluated the correlation between metabolic syndrome and clinical progression in BPH patients.

MATERIAL & METHODS: In this prospective clinical trial, 54 patients with lower urinary tract symptoms were included. Clinical progression in BPH patients were evaluated via total prostate volume and uroflowmetric measurements. In addition, International prostate symptom scoring (IPSS) questionnaire were also obtained for all patients. The study population was divided into two groups according to whether they had a diagnosis of metabolic syndrome (Group II, n=26) or not (Group I, n=28). The diagnosis was made according to the International Diabetes Foundation (IDF)-2005 criteria. Blood pressure, body weight, body height, and waist circumferences were measured in all men. The body mass indexes of the patients were calculated. Biochemical analyses including serum glucose, triglycerides, HDL-C, and prostate-specific antigen (PSA) were also done. Total prostate volumes were measured by transrectal ultrasonographic examination. All patients were invited to the outpatient clinic one year later from their first visit, and annual total prostate volume growth rates (TPVR) and other parameters were measured again.

RESULTS: Median age was 60 years (range 50-72). BPH patients with metabolic syndrome (Group II), had significantly higher median body weight, body mass index, waist circumference, serum glucose, and serum triglyceride levels but lower serum HDL-C levels, when compared to BPH patients without metabolic syndrome (Group I) (p<0.05). Total prostate volume and PSA levels between 2 groups were comparable. When median annual TPVR and IPSS scores were compared between 2 groups, no statistically significant difference was noticed (p>0.05). However, mean Qmax values for groups I and II were 12.5±1.1 and 11.5±1.5 milliliters per second, respectively (p=0.007).

CONCLUSIONS: Clinical progression in BPH by means of measuring prostate volume growth rate and IPSS score change per year, was not related to metabolic syndrome. However, uroflowmetric parameters were worse in patients with metabolic syndrome. Prospective randomized studies with larger series may give more conclusive data.

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S228: PSA correlates with neutrophil-lymphocyte count ratio in patients with existing inflammation process within prostate gland undergoing transurethral resection (TURP) due to BPH

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INTRODUCTION & OBJECTIVES: Neutrophil-lymphocyte count ratio (NLCR) is a simple, low cost and easy to measure marker indicating the balance between inflammatory and immune systems. Several data reported an increased NLCR as a marker of severity in inflammation or cancer [1,2]. Unfortunately, there have been no data describing the usefulness of NLCR in patients with different diseases of prostate. Therefore, the aim of the present study was to compare the preoperative NLCR value with well establish marker of prostate disorders - prostate specific antigen (PSA) in patients undergoing transurethral resection of the prostate (TURP).

MATERIAL & METHODS: Adult patients undergoing elective TURP under spinal anaesthesia were enrolled. Preoperative blood samples were routinely taken for full blood count analysis and PSA within one week of surgery as a part of the standard preoperative workup. Subsequently, NLCR was calculated as the ratio between absolute neutrophil and lymphocyte ratio. NLCR and CRP were analysed in accordance to histopathological post-surgery prostate classification, which distinguished hypertrophy of prostate with purulent inflammation (group A), hypertrophy of prostate with chronic inflammation (group B) and hypertrophy of prostate without inflammation (group C).

RESULTS: 48 patients aged 69±19 were studied. Eight of them were assigned into group A, 19 to group B and 21 to group C. The median baseline values of NLCR were comparable in group A, B and C (3.1 [2.4, 3.6], 3.3 [2.6, 4.9] and 3.8 [2.2, 4.5], respectively). The median PSA value were also comparable in group A, B and C (5.59 [1.96, 11.5], 2.01 [0.95, 3.31] and 0.99 [0.77, 2.66], respectively). NLCR strongly correlated with PSA in group A (p < 0.05, r = 0.74) and moderately in group B (p < 0.05, r = 0.5).

CONCLUSIONS: 1) Preoperative NLCR value correlates with PSA value only in patients with inflammation-related diseases of prostate, 2) preoperative NLCR may be proposed as a marker of existing inflammation process within prostate (prostatitis), subjected to surgery and expected intra- and post-operative complications.

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S230: The research of Prospekt III (prostamol: perspectives of combinated therapy) of BHP

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INTRODUCTION & OBJECTIVES: The estimation of efficiency of the complex therapy by the medicines FLOSIN and PROSTAMOL UNO in 128 patients with Benign Prostatic Hyperplasia (BHP) of the second stage was carried out. AIM of WORK: to estimate the efficiency and bearableness of the protracted combined therapy by medicines FLOSIN and PROSTAMOL UNO in patients with BHP of II stage, by comparison to combination of finasteride+doxasosin. All patients, as well as before, were divided in two groups. The first group (clinical) included 128 patients with BHP of the II stage. The second group(control) consisted of 30 patients with BHP of II stage.

MATERIAL & METHODS: The patients of a 1st group took medicines FLOSIN МР (1 pill once a day in a dosage 0,4 mgs, in the morning after-meal) and PROSTAMOL UNO (1 capsule per day in the evening). Patients from the 2nd group took medicines of Doxasosin (1 pill once a day before the sleep in a dosage 2 mgs) and Finasteride (1 pill of 5 mgs once a day) during three years.

RESULTS: The improvement of different degree of expressed was marked by 93,7% of patients of a 1st group and 90% of patients 2nd group in 3 months of therapy. By the end of 3rd year of the treatment the percent of improvement increased in a 1st group to 96,9%, and in 2nd - 93,3%. The efficiency of the treatment has made 96,9% with low frequency of adverse events. At 3 from a 128 patients (2,3%) of a 1st group by-effects were marked as dizziness, and retrograde ejaculation was marked at 4 (3,1%) patients. And for patients 2nd group by-effects as dizziness and headache were marked at 6(20,0%) from 30 patients. For 4(13,3%) patients the decline of erection and violation of orgasm was marked, and a libido went down at 12(40,0%). Thus, all the by-effects were marked at 13 (43,3%) from 30 patients. Difference on the index of by-effects at patients from 1st (5,4%) and of 2nd (43,3%) group reliable.

CONCLUSIONS: The received results allow recommending Flosin and Prostamol Uno for using in andrologycal practice.

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INTRODUCTION & OBJECTIVES: Overactive bladder (OAB) is defined as combination of proven urinary tract infection or absence of overt bladder pathology and irritative symptoms. All antimuscarinic drugs used in overactive bladder have side effects on other organ systems thus its clinical use is limited. Therefore importance of alternative treatment researches is increasing. For this purpose, effectiveness of acupuncture in females with OAB is an important option to investigate. In this study, we aimed to compare effectiveness of acupuncture with tolterodine treatment in women with lower urinary tract symptoms and discuss the results on scientific basis

MATERIAL & METHODS: 20 women with OAB are accepted to study who applied to Kahramanmaraş Sütcü İmam University Faculty of Medicine, Urology Department. They divided to two groups:
   Group A (10 women): Only treated with electro-acupuncture (totally 10 sessions)
   Group C (10 women): Anticholinergic treatment with tolterodine 2mg twice a day (3 months)

RESULTS: According to urodynamic study in group A; number of contractions is significantly decreased after treatment. First urinary sense volume before treatment is 59.5 (6.00-113.00) ml and after treatment is 92.50 (56.00-206) ml. Bladder capacity is significantly increased(304.5 ml to 380 ml). There is no residual urine in most of patients (80%). There is significant difference in contraction pressures and mean flow rates. According to urodynamic study in group C; number of contractions is significantly decreased after treatment. First urinary sense volume is significantly increased (55 ml to 94.5 ml). Voided urine volume significantly increased. Bladder capacity is increased but not significantly. There is no significant difference in mean flow rates. In two groups, both urodynamic and clinical improvements are similar.

CONCLUSIONS: According to our results acupuncture is effective as tolterodine. To sum up, in OAB patients who can’t tolerate anticholinergic drug because of its side effects, acupuncture is a good alternative treatment for them.

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S232: The use of unspecific anti-inflammation medicine Dexalgyn and phytomedicine Prostamol Uno at patients with the syndrome of chronic pelvic pain

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INTRODUCTION & OBJECTIVES: The estimation of efficiency of the DEXALGYN and PROSTAMOL UNO at 110 patients with the syndrome of chronic pelvic pain was carried out. 110 patients with the syndrome of chronic pelvic pain were examined before and after the treatment.

MATERIAL & METHODS: Patients took DEXALGYN 1 pill in a dose 25 mgs twice a day and PROSTAMOL UNO 1 pill in the evening during 30 days. age of patients - from 31 to 49 years old. Clinical presentation for patients before treatment: the pain syndrome disturbed all 110(100%) patients, dysuric phenomena - 64(58,2%), violations of sexual function were diagnosed at 24(21,8%) patients.

RESULTS: As a result the pain feeling is liquidated upon termination of course of treatment at 106 (96,4%) from 110 inspected patients, dysuric phenomena were disappeared at 58 (90,6%) from 64 patients. Indexes, characterizing urination from data of different methods became better as follows. IPSS before treatment was 16,3+1,2, after treatment 4,9+0,6(P<0,05) Amount of urinations during night diminished from 2,4+0,3 to 0,5+0,1(P<0,05). The index of quality of life of QOL diminished from 5,4+0,3 to 1,1+0,1(P<0,05). Apparently on all indexes the improvement of indexes characterizing urination were certainly improved. Efficiency of treatment was 96,4%. The side effects are marked at 9,9% cases.

CONCLUSIONS: The received results allow recommending Dexalgyn and Prostamol Uno for the use in andrological practice.

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S233: Efficacy of duloxetine in the early management of urinary continence after radical prostatectomy


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INTRODUCTION & OBJECTIVES: To evaluate the efficacy of early duloxetine therapy in stress urinary incontinence occurred after radical prostatectomy.

MATERIAL & METHODS: The patients had radical prostatectomy were randomized into 2 groups following the removal of urinary catheter; group 1 (n: 28): in which the patients had pelvic floor exercise (PFE) and duloxetine therapy, group 2 (n: 30): in which the patients had PFE alone. Incontinence status of the patients, number of pads was controlled and 1-hour pad test and Turkish validation of ICIQ-SF test were applied to the patients at the follow-up.

RESULTS: When the dryness state of the patients was evaluated; 5, 17, 3 and 2 of 28 patients taking duloxetine and applying PFE (Group A) stated that they were completely dry in the 3rd month, 6th month, 9th month and 12th month respectively and left pad use. There was no incontinence in 30 patients applying only PFE in the first 3rd month. Twelve, 6 and 8 patients stated that they were completely dry in the 6th month, 9th month and 12th month, respectively. While 3 of 4 patients in whom dryness could not be provided were using mean 7.6 pads in the first day, they were using mean 1.3 pads after 1 year. When pad use of the patients was evaluated; mean monthly number of pad use was determined to be 6.2 (4-8) in the initial evaluation and 2.7 (0-5) in the 3rd month, 2 (0-3) in the 6th month and 1.6 (0-2) pad/day in the 9th month in the group taking medicine. Mean monthly number of pad use was determined to be 5.8 (4-8) in the initial evaluation and 4.3 (3-8) in the 3rd month, 3 (0-6) in the 6th month and 1.6 (0-6) pad/day in the 9th month in the group not taking medicine.

CONCLUSIONS: According to our results, early duloxetine therapy in stress urinary incontinence occurred after radical prostatectomy has efficacy to provide early continence.

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S234: Long-term results of artificial urinary sphincter reimplantation following prior explantation

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INTRODUCTION & OBJECTIVES: Despite upward of 90% patient satisfaction with Artificial urinary sphincter (AUS) in men with postprostatectomy incontinence, the devices often require revision because of atrophy, mechanical failure, infection and erosion. Notably, in the setting of primary AUS implantation several large series revealed an overall 25% to 50% revision rate. We presented clinical outcomes in patients treated with artificial urinary sphincter reimplantation after artificial urinary sphincter explantation.

MATERIAL & METHODS: We identified 3 men previously treated with device explantation due to erosion or infection in circumstances that we recommend to as salvage AUS placement. Determination of the reason for device explantation was based on clinical presentation, cystoscopy, radiographic imaging and/or intraoperative findings. Erosion was defined as perforation of the urethral cuff into the urethral lumen or urine leakage towards to the scrotal and inguinal operational region. Device explantation was considered due to infection if suggested by clinical presentation, in addition to a lack of evidence of erosion on cystoscopic and/or imagings. In all cases the entire device was removed at explantation and reimplantation was performed at least 3 months later.

RESULTS: A total of 3 patients had undergone prior AUS explantation secondary to urethral erosion, atrophy, mechanical failure and device infection. In all 3 men with salvage AUS placement the most recent prior AUS device was placed at our institution. All 3 patients with a median age of 69.5 years who underwent salvage AUS implantation after explantation for erosion or infection at a median of 8 months. The most common etiologies of stress urinary incontinence were radical prostatectomy in 66% of cases, radiation therapy in 33%. Comorbid medical conditions were highly prevalent, such as obesity, hypertension and diabetes mellitus.

CONCLUSIONS: Although AUS explantation is annoying cases and not rarely seen, in appropriately selected and counselled patients clinically acceptable long-term device survival can be achieved after reimplantation.

Eur Urol Suppl 2014; 13(7) e1559
S235: Initial experience of an adjustable male sling, Argus-T, for the treatment of stress urinary incontinence post-radical prostatectomy

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INTRODUCTION & OBJECTIVES: The male sling has become a very attractive alternative to the artificial sphincter in recent years. We report our experience of the first use of the Argus-T adjustable male sling in the UK.

MATERIAL & METHODS: Between October 2012 and February 2014, 14 men with stress urinary incontinence, following radical prostatectomy, had a sling inserted. The Argus-T system (Promedon, Cordoba, Argentina) comprises a silicone foam pad for soft bulbar urethral compression. The pad is attached to silicone cone columns that, after being passed with needles from the perineum through the obturator foramen, are adjusted with silicone washers to regulate and keep the desired tension against the urethra. The degree of tension is determined by using a cystoscope to measure the retrograde leak point pressure from the urethra to the bladder and tightening the system until the pressure is increased to 35 cm H₂O. The primary end point was pad usage.

RESULTS: The mean pad usage per day prior to surgery was 6.6 (2-14); 3 used convees. 6 men required readjustment to tighten the slings. Total continence (zero pads) was achieved in 10 (71%) patients while the remaining 4 used 1 pad. The 4 declined further surgery to adjust the sling. Two patients had their slings removed - one for infection and the other for pain. There were 4 cases of prolonged discomfort that settled and one case of retention, which resolved.

CONCLUSIONS: This new adjustable male sling safely and effectively controls sphincter incontinence in men after prostate surgery, with very encouraging early results.

Eur Urol Suppl 2014; 13(7) e1560
S237: Acquired giant urethral diverticulum and recurrent urolithiasis in a male paraplegic patient: A case report and review of literature

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INTRODUCTION & OBJECTIVES: Urethral diverticulum is a rare pathologic entity. It can be divided into two groups as congenital and acquired. The complaints of patient, history and physical examination are so important for diagnose and also opacification and cystoscopy can be used. Diverticulum may be seen in anterior and posterior parts of urethra. Micturation cystourethrography, urethrography and magnetic resonance imaging are some of radiologic techniques that can be used for diagnose. In this case we present patient with a recurrent urolithiasis and anterior urethral diverticulum.

MATERIAL & METHODS: A 40 year-old male patient presented to our clinic with left flank pain, dysuria, frequency, obstructive symptoms and sensation of incomplete emptying of urine. The patient was paraplegic and had a history of cerebral hemorrhage after traffic accident. There was a satoghorn left kidney stone also in IVU.

RESULTS: Left percutaneous nephrolitotomy was planned for the patient. Before that during the cystoscopy, a urethral diverticulum seen in urethra. According to physical examination there was a serious swelling in anterior part of scrotum (Figure 1) and on compression the urine was dribbling out of urethra. A urethrography was planned for the patient on postoperative 2nd month. And a 8 cm-diameter diverticulum seen in urethrography. An open diverticulectomy and primary repair was performed for the diverticulum. A 8 cm-diameter urethral diverticulum was excised (Figure 2). After the operation the urethral and drainage catheters was taken on postoperative 5th day and the patient was discharged on postoperative 6th day. And there was no complication after surgery on routine follow-ups.

CONCLUSIONS: The diagnose and choice of treatment method is so important especially for symptomatic urethral diverticula. There are nonoperative or operative approaches and several operative techniques that can be used for treatment.

Eur Urol Suppl 2014; 13(7) e1561
Could psychological disturbance predict explantation in successful pelvic neuromodulation treatment for bladder dysfunction?

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**INTRODUCTION & OBJECTIVES:** Sacral neuromodulation (SNM) is a safe and effective therapy for patients with lower urinary tract dysfunction. SNM has been approved by the Food and Drug Administration (FDA) for the treatment of urge incontinence (UI), urgency-frequency syndrome (U/F) and non-obstructive urinary retention (NOUR). It is used in patients who have exhausted all other conservative therapeutic options. The selection of eligible candidates could predict a successful therapeutic outcome. In this study, we evaluated whether psychological/psychiatric disturbance of the implanted patient could influence in an otherwise successful implantation of SNM device assessed objectively. Our objective is to report patients who have had their SNM device explanted secondary to psychological issues following a successful implantation.

**MATERIAL & METHODS:** We report two patients who have had a successful implantation of SNM objectively with successful therapeutic outcome, interpreted as an improvement of their urinary symptoms and post void residual (PVR). However, the device had to be explanted and the reasons behind device explantation were discussed.

**RESULTS:** Two female patients underwent staged SNM device implantation. One patient was diagnosed with idiopathic urinary retention and a full 2 stages were achieved. The other patient presented with a high PVR associated with recurrent urinary tract infections (UTI) and successful stage I was achieved. Complete success and cure for both patients’ urinary symptoms and post void residual were obtained following the device implantation. Regardless of the successful therapeutic outcome, explantation of the device was done for both patients secondary to psychological issues.

**CONCLUSIONS:** Psychological/psychiatric disturbance can be a predictor of poor outcome. Our data suggests that psychiatric problems need to be addressed when determining patient eligibility for SNM therapy. This will help reduce the explantation rates after a successful therapeutic response.

Eur Urol Suppl 2014; 13(7) e1562
INTRODUCTION & OBJECTIVES: Our main purpose in this prospective study was to analyze urodynamic observations and concomitant psychiatric diagnosis between males and females with self reported refractory to initial empirical pharmaceutical treatment OAB diagnosis.

MATERIAL & METHODS: Prospectively, treatment seeking national health system patients with resistant to initial empiric medical treatment LUTS were asked to self complete IPSS questionnaire. According to IPSS, patients with at least moderate frequency and urgency (Sum of IPSS questions 2+4 ≥ 5) were defined as suggestive OAB patients. As pure OAB patients were defined patients with suggestive OAB diagnosis but without urodynamic bladder outlet obstruction (BOO). Based on patient’s history, suggestive and pure OAB patients were further subdivided to OABwet (history of incontinence) and OABdry (without incontinence) patients. Urodynamic observations, quality of life impairment and concomitant history of psychiatric diagnosis under treatment were also investigated.

RESULTS: Between May 2010 and February 2013 one hundred eighty eight patients were visited our functional urology outpatient clinic for refractory LUTS. From those patients, 67% (n=126, males=61, females=65) were met our IPSS criteria for suggestive OAB diagnosis. OABwet diagnosis, severe quality of life impairment, psychiatric diagnosis, idiopathic detrusor overactivity (IDO) and increase bladder sensation(IBS) were statistically significant in females with IPSS suggestive OAB. On the contrary, OABdry diagnosis and bladder outlet obstruction concomitant with detrusor overactivity (DO) were statistically significant higher at males with IPSS suggestive OAB (Table 1). Higher mean age and female gender were the only statistically significant differences among pure OABwet and pure OABdry patients. IDO and IBS were found in 56.5% and 31.7% of patients with pure OAB diagnosis (Table 2).

<table>
<thead>
<tr>
<th>Total OAB(n=126)</th>
<th>%</th>
<th>Age</th>
<th>Qol≥5</th>
<th>Psychiatric History</th>
</tr>
</thead>
<tbody>
<tr>
<td>Males(n=61)</td>
<td>48.4%</td>
<td>54.41(sd 17.62)</td>
<td>18.00%(n=11)</td>
<td>27.9%(n=17)</td>
</tr>
<tr>
<td>Females(n=65)</td>
<td>51.6%</td>
<td>56.11(sd 15.40)</td>
<td>78.5%(n=51)</td>
<td>50.8%(n=33)</td>
</tr>
<tr>
<td>Pvalue</td>
<td>1</td>
<td>0.5651</td>
<td>0.0001</td>
<td>0.0278</td>
</tr>
<tr>
<td>Total OAB(n=126)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Males(n=61)</td>
<td>14.8%(n=9)</td>
<td>68.9%(n=42)</td>
<td>29.5%(n=18)</td>
<td>39.3%(n=24)</td>
</tr>
<tr>
<td>Females(n=65)</td>
<td>39.3%(n=22)</td>
<td>56.9%(n=37)</td>
<td>47.7%(n=31)</td>
<td>9.2%(n=6)</td>
</tr>
<tr>
<td>Pvalue</td>
<td>0.0141</td>
<td>0.1986</td>
<td>0.0449</td>
<td>0.0001</td>
</tr>
</tbody>
</table>

Table 1 Mean age, severe QoL impairment, psychiatric history and UDS observations between males and females with at least moderate frequency and urgency (IPSS sum2+4 ≥ 5) on IPSS questionnaire.(History suggestive OAB diagnosis).

<table>
<thead>
<tr>
<th></th>
<th>IBS</th>
<th>IDO</th>
<th>Qol≥5</th>
<th>Psychiatric history</th>
<th>Females</th>
<th>Age</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pure OABwet(N=46)</td>
<td>26.1%</td>
<td>65.2%</td>
<td>76.1%</td>
<td>47.8%</td>
<td>82.6%</td>
<td>62.13(sd 14.27)</td>
</tr>
<tr>
<td>Pure OABdry(N=39)</td>
<td>38.5%</td>
<td>46.2%</td>
<td>64.1%</td>
<td>48.7%</td>
<td>48.7%</td>
<td>45.64(sd 17.50)</td>
</tr>
<tr>
<td>Pvalue</td>
<td>0.25</td>
<td>0.085</td>
<td>0.243</td>
<td>1</td>
<td>0.0012</td>
<td>0.0001</td>
</tr>
</tbody>
</table>
Table 2 Mean age, severe Qol impairment, psychiatric history and UDS observations between patients with pure OABwet and OABdry diagnosis

**CONCLUSIONS:** Complex symptom suggestive of refractory OAB diagnosis and pure OABdry diagnosis after exclusion of patients with urodynamic BOO it seems to be equally frequent among males and females. Pure OABwet diagnosis was correlated with female gender and higher mean age with IDO (56.5%) followed by psychiatric history (48.2%) were found to be the most frequently observed urodynamic and patient’s history parameters in pure OAB patients.

Eur Urol Suppl 2014; 13(7) e1563
S241: Time of onset post intra-detrusor injection of botulin toxin in patients with neurogenic and non-neurogenic overactive bladder syndrome

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INTRODUCTION & OBJECTIVES: Botulinum toxin has emerged as an alternative and second-line treatment option for patients with neurogenic and non-neurogenic over-active bladder (OAB) who are refractory to first-line treatment modalities when injected into the detrusor muscle. This study attempts to address the time of onset post intradetrusor injection of botulinum toxin. Our objective is to evaluate the time of onset post-intradetrusor injection of botulinum toxin in a cohort of patients with neurogenic and non-neurogenic OAB.

MATERIAL & METHODS: We conducted a retrospective study in which patients charts were reviewed as well as obtaining a telephone interview of patients who received intradetrusor injection of Botulinum toxin from December 2012 to January 2014.

RESULTS: A total of 17 patients were involved. The mean age was 46.5 years, 4 males (23.5%) and 13 females (76.5%). Five patients with multiple sclerosis (29.4%), 2 patients with spinal cord injuries (1 trauma, 1 iatrogenic injury) (12.2%), 2 patients with spina bifida (11.8%), 7 patients with idiopathic OAB (41.1%), 1 patient had interstitial cystitis (5.8%), 2 patients with spinal bifida (11.8%). only 2 patients had comorbidities of hypertension and Diabetes mellitus. Two patients had the procedure performed twice. All procedures were undertaken by one surgeon. All patients who had neurogenic bladder over activity received 200 units of Botulinum toxin, whereas the rest received 100 units. On telephone interview, 3 patients were unreachable, 2 patients determined the onset of effect being 1 day after discharge (11.8%), 4 at 7 days after discharge (23.5%), 6 patients at 14 days (35.3%), 1 after 1 month (5.8%) and 1 patient felt no improvement after the procedure.

CONCLUSIONS: The mean time of onset post-intradetrusor injection of Botulinum toxin was found to be 11.07 days. The time of onset does not to be influenced by age, gender or pathology. A more powered study is warranted in order to verify the findings from this study.

Eur Urol Suppl 2014; 13(7) e1564
S243: Botulinum toxin-a injection therapy in a man with luts due to primary bladder neck dysfunction

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INTRODUCTION & OBJECTIVES: Primary bladder neck dysfunction (PBND) is characterized by a non-neurogenic failure of bladder neck opening during the voluntary micturition, resulting lower urinary tract symptoms (LUTS), in the absence of other causes of anatomical obstruction. We herein present a patient with PBND who managed with transurethrally injected Botulinum Toxin-A (BTA) into his bladder neck.

MATERIAL & METHODS: A 35-year-old male patient referred to our clinic with LUTS refractory to medical therapy. His history was not remarkable for any pelvic surgeries or pathologies and any central or peripheral neurological disorders. Urinary flow rates were measured. Cystoscopy revealed moderate bladder trabeculation, multiple cellules and a diverticulum on the right lateral bladder wall. Videourodynamic study showed the absence of bladder neck funneling during micturation. 200 UI of BTA injected transurethrally to the bladder neck (4 sites, 1 ml/site).

RESULTS: Duration of this procedure was 15 minutes. Neither systemic nor local adverse effects occurred related to the procedure. Qmax value increased from 5ml/sec to 19ml/sec, mean flow rate value increased from 2ml/sec to 8ml/sec and PVR decreased from 85ml to 0 ml at the second months of BTA injection therapy, respectively. He also declared his satisfaction with the treatment his postoperative International Prostate Symptome score was 12+2 compared to 30+5 before the injection therapy.

CONCLUSIONS: PBND leads LUTS in young males and the diagnosis can be made with videourodynamic. BTA injection therapy might be performed effectively in medically refractory men with PBND without local or systemic side effects.

Eur Urol Suppl 2014; 13(7) e1565
S245: The effect of change in medical treatment of locally advanced prostate cancer and metastatic prostate cancer on PSA level: Single institutional data

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INTRODUCTION & OBJECTIVES: GnRH (gonadotropin-releasing hormone) analogues are long-term known to be safe and effective in the clinical management of hormone-dependent advanced prostate cancer. Although using this treatment, most prostate cancers progress to an advanced stage. In some clinical using GnRH agonist, patients are switched to another GnRH agonist after initial treatment failure. So, the androgen-independency of the cancer in advanced stages has spurred researchers to look for new medical treatments. Therefore, in this study we aimed to investigate the relationship between age, gleason score, PSA levels, bone metastasis and treatment changes.

MATERIAL & METHODS: A retrospective study was performed on 90 patients who were diagnosed as metastatic prostate cancer between 2003 and 2014, in Turkey, at Ankara Training and Research Hospital. Patients were treated initially with leuprolide acetate 11.25 mg, goserelin 10.8 mg or leuprolide acetate 22.5 mg. Bicalutamide 50 mg was added as antiandrogen. Elevated PSA levels were accepted as failure to initial therapy and patients were switched to another treatment choice. Groups were compared with age, bone metastasis (multiple, single or not) and gleason scores. SPSS for Windows 15.0 was used for statistical analyses.

RESULTS: The mean age was 72.83±6. Mean PSA level was calculated as 85.12 before treatment. Bone metastasis was detected 53.3% of patients before the treatment. There was no difference between groups with bone metastasis, neither single nor multiple before and after treatment. 56 patients (36.7%) were continued with their initial therapy (Group 1). 33 patients (62.2%) were switched to another therapy (Group 2). 13.3% of patients were switched to leuprolide acetate 22.5 mg. 86.7% of patients were continued their hormone therapy as leuprolide acetate 22.5 mg. There was no statistical difference for PSA levels (p<0.05). The mean PSA level was calculated as 39.45 for group 1 and 48.79 for group 2. There was no statistical difference between two groups.

CONCLUSIONS: Three different types of GnRH agonists which we use in our clinic are effective. The changes in medical treatment of locally advanced and metastatic prostate cancer has no effect on PSA level.

Eur Urol Suppl 2014; 13(7) e1566
S247: Comparing the frequency and severity of hot flashes in prostate cancer patients under androgen deprivation therapy with an LHRH agonist or antagonist

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INTRODUCTION & OBJECTIVES: Hot flashes (HFs) are well documented as an adverse event of androgen deprivation therapy in prostate cancer patients with either an LHRH antagonist or an LHRH agonist. The objective of this study is to compare the severity and frequency of hot flashes between LHRH agonists and LHRH antagonists in prostate cancer patients.

MATERIAL & METHODS: We evaluated hot flashes in 84 prostate cancer patients that started androgen deprivation treatment during the last year in our department. Forty seven of them started treatment with the LHRH antagonist degarelix (240mg initiation and then 80mg/4weeks) and 37 of them started treatment with the LHRH agonist leuprorelin (11,25mg/12weeks). All patients were asked to complete a five-day hot flashes diary at the beginning of the treatment and then at 4th, 8th, 12th, 16th, 20th and 24th week. In the diary, the patients were asked to record the number of HFs per day and also the severity of each episode (1=mild, 2=moderate, 3=severe). Finally, a hot flashes index (HFI) (frequency x severity) was calculated for each diary.

RESULTS: HFs were reported from 28/47 (59.6%) of patients in the group of degarelix and 23/37 (62.2%) in the group of leuprorelin (chi-square p=0.826). Correctly filled diaries with at least 3 days completed had 24/47 (51.1%) of degarelix group and 21/37 (56.8%) of leuprorelin group (chi-square p=0.663). In degarelix group hot flashes were documented from the first month of treatment in the majority of patients, but that didn’t occur in the leuprorelin group (degarelix: mean HFI_4w: 2.38±1.13 vs leuprorelin: mean HFI_4w: 1.12±0.74, t-test p<0.0001). This statistical difference continued to show until the 12th week of treatment and from the 16th week until the end of the study there was no difference between the two groups (degarelix: mean HFI_24w: 5.68±1.21 vs leuprorelin: mean HFI_24w: 5.38±1.42, t-test p=0.463).

CONCLUSIONS: Hot flashes seem to occur earlier and with greater frequency and severity in prostate cancer patients under LHRH antagonist treatment when compared to an LHRH agonist. This difference stops to exist after the third month of treatment, when hot flashes seem to reach a plateau with either treatment.

Eur Urol Suppl 2014; 13(7) e1567
INTRODUCTION & OBJECTIVES: The aim of our study was to report intraoperative complications, early postoperative complications and development of anastomotic stricture after radical retropubic prostatectomy (RRP).

MATERIAL & METHODS: Between December 2001 and November 2013, 152 patients with histologically proven carcinoma of the prostate, staged as clinically organ-confined cT2 or less, underwent RRP using a modified anatomic approach described by Walsh. Staging lymphadenectomy was used in all patients, irrespective of serum prostate-specific antigen (PSA) values and Gleason scores. An effort was made to preserve the bladder neck in all patients and, if necessary, the bladder neck was reconstructed in tennis-racquet fashion. Eversion of mucosa of the bladder neck was performed using 4-0 Vicryl or Assucryl, while anastomotic sutures of 3-0 Vicryl or Assucryl with 5/8 needle were placed at the 1, 3, 5, 7, 9, and 11 o’clock positions through the full thickness of the urethra, including the mucosa and muscularis of the bladder neck, ensuring mucosa-to-mucosa anastomosis. A transurethral 18 or 20-Fr silicon catheter was inserted to provide temporary urinary drainage for 2-3 weeks. Water tightness of the anastomosis was tested by injection of saline (150 ml) through a Foley catheter. We reported all intraoperative (blood loss, rectal injury and ureteral injury) and early postoperative (thromboembolic, lymphocele, urine leakage, urinary tract and wound infection, loss of catheter) complications. Bladder neck contracture was reported too.

RESULTS: Patients mean age was 64.9 ± 5.2 (range 54–73) years. Blood loss less than 1000ml was reported in 47.7% (n=72) of patients, 1000-2000ml in 46.3% (n=70) and more than 3000ml in 6% (n=9) of patients. Rectal injury occurred in one patient (0.6%) while ureteral injury occurred in 3 patients (2%) because of bladder neck division. One patient had pulmonary thromboembolic events. In two patients (1.3%) catheter fell out. Operative wound infection was reported in 5 (3.3%) patients. From 139 patients who had sterile urine preoperatively 32 (23%) patients had urinary tract infection. Lymphocele occurred in two patients. During the first three postoperative days, in 40% of patients average daily urine leak was 800ml. Bladder neck contracture was reported in 9 (5.9%) patients.

CONCLUSIONS: Open radical retropubic prostatectomy is a safe operation with small percentage of intraoperative and early postoperative complications which can be successfully solved.
INTRODUCTION & OBJECTIVES: As a result of retrograde glomerular reflux developing linked to ureteral obstruction, nitric oxide synthesis is disrupted and the effect of this on renal function has been shown by many experimental studies. In addition asymmetric dimethyl arginine, a nitric oxide synthesis inhibitor, increases due to retrograde glomerular reflux and is known to disrupt nitric oxide synthesis. Our aim is to measure asymmetric dimethyl arginine and nitric oxide levels in rats with induced unilateral acute ureteral obstruction to research the effects on the kidney.

MATERIAL & METHODS: The study included 21 adolescent (average age 6 weeks) Sprague-Dawley male rats weighing between 240-290 g divided at random into 3 groups. Group 1: Control group (n=6): underwent no procedures. Group 2: Sham group (n=6): underwent the same procedures as the experimental group without ureter and psoas muscle dissection. Group 3: Group with induced partial unilateral ureteral obstruction (n=9). All rats were sacrificed after 12 weeks. Superoxide dismutase enzyme activity and nitrite and nitrate salt levels were measured in renal tissue. Plasma nitrite-nitrate and ADMA levels were examined.

RESULTS: In the experimental group tissue SOD and blood ADMA levels were significantly high compared to the control and sham groups (p<0.05) while tissue NO and plasma NO values were significantly lower than in the sham and control groups (p<0.05).

CONCLUSIONS: To prevent renal complications developing after obstructive nephropathy we believe that a new strategy may be research on reducing ADMA. But more extensive experimental and clinical studies are needed.
S252: 8 years of experience with buccal urethroplasty. A review of 95 cases. Results and outcomes

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INTRODUCTION & OBJECTIVES: To represent our experience with Buccal Mucosa Urethroplasty (BMU) for substitution of all segments of urethra for one stage and double stage urethroplasties.

MATERIAL & METHODS: We repaired 95 urethral strictures with BMU from 2006 – 2013. From them 87 were one stage dorsal or ventral urethoplasties and 8 patient were two stages urethroplasties. Recurrence rate, complications were analized retrospectively. Mean follow up was minimally 2 years. From one stage BMU in 68 cases was used ventral graft for bulbous urethra. In 5 cases of bulbar obliterative strictures after pelvic fractures we used dorsal graft. In 14 cases we used the Asopa tecnic for pendulous urethra. Patient were evaluated in follow up with flusometry and when it was less then 10ml/sec the Qmax with flexible cystoscopy.

RESULTS: Median age of the patient was 49, mean length of the graf was 4.2. The success rate was 86%. In patient with recurrence we did internal urethrotomies which resulted conclusive. Only in 5 patient we did again grafting with BMU.

CONCLUSIONS: One stage BMU provides an excellent result for strictures involving any segment of anterior and posterior urethra. At the same time it offers a good alternative for two stage repair of long defects of urethra after failed hypospadias or combined pendulous and bulbar strictures. Even in the case of recurrence most of the patient are resolved with internal Urethrotomies leaving redo BMU only for 5.2% of cases.

Eur Urol Suppl 2014; 13(7) e1570
S253: Primary endoscopic realignment in posterior urethral injuries

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INTRODUCTION & OBJECTIVES: We aimed to present our primary endoscopic realignment experiences that we performed to with posterior urethral injuries.

MATERIAL & METHODS: We examined 7 patients that we performed primary endoscopic realignment in our clinic due to complete posterior urethral rupture in between January 2006-June 2014 respectively. Posterior urethral rupture was diagnosed in these patients by retrograde ureterography. It was accepted as failure to not to be successful in placing transurethral catheter during procedure. Patients were followed-up by radiologic findings, pressure assessments and cystoscopic evaluation.

RESULTS: The mean age of the patient group was 39.8 years-old (ranging in between 23-66 years-old). During diagnosis, suprapubic catheter was first applied to patients. Afterward the stabilization of patients by intravenous antibiotherapy and elimination of pain, primary endoscopic realignment was applied in early period (through first 5-7 days). Procedure has been successful in 4 of the patients (57%). 3 weeks later, transurethral drainage was taken out all patients after urethral assessment by ureteroscopy. 1 of these 4 success-achieved patients had complete urethral block in 2nd month of follow-up and although seconder endoscopic realignment was applied, we couldn’t again be successful. Incontinence was seen in none of the patients through follow-up.

CONCLUSIONS: Primary endoscopic realignment may be performed confidently as a minimal invasive treatment modality in complete posterior urethral ruptures with an acceptable success and complication ratio in early period.

Eur Urol Suppl 2014; 13(7) e1571
INTRODUCTION & OBJECTIVES: The most severe anterior urethral strictures include complete loss of urethral lumen. Repair of these complex urethral strictures often requires complete removal of the obliterated urethral segment and multi-stage repair. Aim of this study is to present a single-stage procedure in the treatment of complex anterior urethral strictures by combining buccal mucosa graft and penile skin flap in order to create a complete urethral lumen.

MATERIAL & METHODS: Between February 2007 and December 2013, 43 patients with severe anterior urethral stricture underwent single-stage substitution urethroplasty. Mean age of the patients was 44 years, and ranged from 15 to 63 years. Twenty six patients had previous hypospadias repair; eleven patients developed stricture of unknown origin, and six patients had urethral stricture after trauma. Patients with signs of lichen sclerosis were not considered for this procedure. The median length of the obliterated urethral segment was 5.2 cm and varied from 3 to 8.5 cm. The affected urethral segment was completely removed; buccal mucosa graft was harvested and fixed to corpora cavernosa as a dorsal part of neourethra and vascularized penile skin flap was created and sutured to buccal mucosa graft to form complete urethral lumen.

RESULTS: The median follow-up was 37 months (ranged from 6 to 82 months). The success was defined as a patency of the urethra without need for any additional surgical procedure. Successful result was confirmed in 37 (86%) patients, while 6 patients (14%) required additional surgical treatment. Recurrence of the stricture occurred in five cases during follow up period. In three cases fistula was noted; two resolved spontaneously during follow up, while one required surgical closure. Minor superficial necrosis of the dorsal penile skin was occurred in four cases and all healed by conservative treatment.

CONCLUSIONS: Simultaneous use of buccal mucosa graft and longitudinal penile skin flap could be a good choice for substitution urethroplasty in patients with obliterative anterior urethral strictures. In this manner, multi-stage urethral reconstruction could be avoided. Therefore, multi-stage repair of these strictures using buccal mucosa graft should be reserved only for patients with evident lichen sclerosus and severe paucity of penile skin.

Eur Urol Suppl 2014; 13(7) e1572
INTRODUCTION & OBJECTIVES: Delay in the treatment of testicular cancer (TC) has proven negative impact of disease stage, treatment outcome, and mortality. Poor public awareness of the TC and lack of testicular self-examination (TSE) may account for late detection. The aim of this prospective study was to examine the knowledge of TC symptomatology and performance of TSE in a group of patients (pts) requiring primary urological care over 2 time period of 10 years apart.

MATERIAL & METHODS: This study enrolled 470 and 970 men surveyed on their knowledge of TC and TSE in 2001 and 2011, respectively. The pts are required to fill up voluntary the written questionnaire of TC’s symptoms knowledge and TSE. The questionnaire was designed to test 8 key areas of TC’s knowledge: 1) awareness of TC, 2) age group susceptibility, 3) predisposing facts, 4) presenting symptoms, 5) treatment efficacy, 6) awareness of TSE, 7) performance of TSE, and 8) desire for further information of TSE.

RESULTS: Among a total number of 1650 pts, 1440 had volunteered for inclusion in the study (470 men in 2001 and 970 men in 2011, respectively). The age of these pts ranged from 18-67 years (median 44.5 years) (721 < 45 years and 719 > 45 years). There was no difference regarding the age and social status between 2 analyzed study population group. However, there was higher incidence of urban population in both group of pts (P<0.0001). The aware of the existence of TC (58% vs. 99%) (p<0.0001), awareness of the susceptible age in which it occur (13% vs. 61%) (p<0.0001), knowledge of symptoms (23% vs. 71%) (p<0.0001), lump (47% vs. 77%) (p<0.0001) and pain (33% vs. 13%) (p<0.0001) were reported as major presenting feature. The favorable issue following treatment is reported in 14% vs. 48% (p<0.0001). Aware of TSE were 18% vs. 50% (p<0.0001), while only 1.3% vs. 4.8% (p<0.0006) sometimes performed TSE at the recommended monthly interval, and 14% vs. 46% (p<0.0001) never performing. There was no significant difference in knowledge score or performance of TSE according to different age profiles. However, men who performed TSE had a higher knowledge score that those who did not (5.11±0.04 vs. 4.06±0.00003) (p<0.01; chi-squared testing). These raw data were unavailable from previous 2001 study group. Among 970 pts in the 2011 study group, only 10% were able to suggest possible causes of TC, while the data from 2001 study group are not available. The overall knowledge based of 8 point questionnaire was 4.49 (95% confidence interval= 4.378-4.61). It was encouraging that that 90% vs. 97% (p<0.0005) expressed an interest in obtaining further information, while 18% vs.72% (p<0.0001) were not aware of possible symptoms.

CONCLUSIONS: Increased TC knowledge combined with TSE have a significant role in improving early detection of TC. The present study demonstrated that our efforts regarding education resulted in increased level of awareness and TSE during the observation time of period.

Eur Urol Suppl 2014; 13(7) e1573
S258: Long-term follow-up of cisplatin combination Chemotherapy (C) in patients (pts) with disseminated Nonseminomatous Testicular Tumors (NSTT): Is a Post-Chemotherapy Retroperitoneal Lymphadenectomy (PC-RPLA) needed after Complete Remission (CR)?

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INTRODUCTION & OBJECTIVES: Controversies arises regarding the optimal management of pts with NSTT who achieve a serologic and radiographic CR to systemic C. Some authors recommend PC-RPLA, whereas others omit surgery and observe these pts. In an attempt to address this question, we report long-term follow-up (FU) of pts who achieved a CR to 1st line C and were observed without PC-RPLA.

MATERIAL & METHODS: This is a retrospective analysis of 216 pts with metastatic NSTT who achieved a CR to 1st line C and were monitored without further therapy. CR was defined as normalization of STMs and complete resolution of all radiographic disease (ds).

RESULTS: Mean age was 27 year (y), teratoma (T) compound was present in the primary tumor in 82 (38%) pts, 54 (25%) pts were in CS III, and 79 (37%) pts had RP RM > 5 cm. 3 (1%) had < 2 y FU and 136 (63%) > 10 y. After a MFU of 160.3±62.2 months (m), 15 (7%) pts experienced relapse. Of these 15 pts, 9 pts currently have no evidence of ds (NED) and 6 pts died of ds. 3 (1%) had < 2 y FU and 136 (63%) > 10 y. After a MFU of 160.3±62.2 months (m), 15 (7%) pts experienced relapse. Of these 15 pts, 9 pts currently have no evidence of ds (NED) and 6 pts died of ds. 8(4%) pts died while ds-free and 4(2%) died of unknown causes. The 5-, 10- y DSS and RFS rates were 90%, 88% and 84%, respectively (Log Rank=37.25; p<0.0001). The 5- and 10-y overall survival rates were 90% and 84%, respectively. The 5-, 10-y DSS rates for good risk pts (n=159) vs intermediate/poor risk pts (n=57) were 99%, 95% and 99%, 93%, respectively (Log Rank=14.816; p<0.0001). Probability of remaining relapse free after achieving CR according to good vs intermediate/poor IGCCCG risk group were 99% and 75%, respectively (Log Rank=16.015; p=0.001). 9 (6%) pts experienced recurrence in the RP within MFI of 29 m (range, 6 – 120 m), of whom 3 pts died of ds. 5 pts had late relapse (range, 25 – 120 m), including 3 pts in the RP. 3 pts currently have NED. On univariate analysis RP RM size and T in the orchiectomy specimen were not predictive for DSS, whereas the sole predictor was IGCCCG risk classification (p=0.001). 3(1%) pts had 2ndGCTT developed between 5 m to 17 y after initial diagnosis (all pts had CS I, with discordant histology, 2 underwent surveillance).

CONCLUSIONS: Pts obtaining a CR after 1st line C can be safely observed without PC-RPLA. Relapses are rare and potentially curable with further treatment.

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S259: HIV negative isolated scrotal kaposi sarcoma-case report

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INTRODUCTION & OBJECTIVES: Kaposi’s sarcoma (KS) is a rare angioproliferative disorder of the vascular endothelium. The development of KS requires the presence of a Human Herpes Virus 8 (HHV-8) infection. The classical form was first defined as “idiopathic multiple pigmented sarcoma” by Moritz Kaposi in 1872 (1). The skin lesions are classically characterized by macules, plaques and nodules that are of a purple, red, blue, dark brown or black appearance. While KS primarily affects mucocutaneous tissues, it can also affect internal organs. Classical KS mostly affects the lower extremities. Penile KS is relatively common, while isolated scrotal KS has rarely been seen (2). In this article, we present a case of KS that primarily involved the scrotal region.

MATERIAL & METHODS: A 71-year old male patient admitted to the outpatient department due to black nodular lesions on the scrotum. The patient declared that these lesions were present for nearly 5 years. Past medical history revealed that he underwent left thoracotomy and upper lobectomy in 2006 for adenosquamous lung carcinoma. Then, he received a single cycle of adjuvant chemotherapy consisted of docetaxel and cisplatin. The chemotherapy was discontinued due to the side effects. No recurrence was detected regarding the lung cancer. The scrotal lesions appeared 2 months following the chemotherapy. Physical examination revealed 3 black nodules on the scrotum, each one being nearly 0.5x0.5cm in dimension. No other similar lesions were seen elsewhere. Routine lab tests were all normal. The anti-HIV test (chemiluminescence) was identified as negative. He had abdominal computed tomography for the follow-up of lung cancer showing no specific abnormality unless an increase in the thickness of the stomach wall. A gastroscopy was then performed revealing no lesions. All scrotal lesions were surgically excised. The pathological investigation revealed KS of the lymphangioma-like type.

RESULTS: In classical KS, lesions are primarily located on the lower extremities, and the involvement of external genitalia is uncommon. Although cases of HIV negative patients in which the penis is primarily involved have been reported, very few cases of scrotal KS have been presented. In a recent study, only 1 patient had scrotal KS out of 32 cases with non-HIV KS. Also, it was unclear that this single case of scrotal KS was associated with other locations or not. Penile KS has been reported more extensively. Only two cases of isolated scrotal KS were presented. Our case represents the 4th case up to our knowledge. The pathogenesis of KS has still not been clearly elucidated. However, it is known that all forms of KS are associated with HHV-8 infections. A defect in immune system was almost always necessary. Therefore, KS is usually associated with HIV infection. In our case, the patient received a course of chemotherapy that might affect his immune system. Despite the use of various local and systemic treatment methods for classical KS, there is no standard treatment procedure administered to cases with genital KS. A total of 19 cases with penile KS was reported. We preferred local excision for our patient, since these lesions were small and stable for about 5 years. No recurrence was observed after 2 years of follow-up.

CONCLUSIONS: In conclusion, classical KS is generally observed in the lower extremities, it can rarely affect scrotal skin as isolated lesions. Therefore, a careful physical examination should also include scrotum in these patients.

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**S260: Role of integrators in the treatment of Peyronie's disease**

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**INTRODUCTION & OBJECTIVES:** Different therapies are used in the conservative treatment of Peyronie’s disease (growth of fibrous plaques at corpora cavernosa). This therapy is indicated for at least one year after diagnosis. This study was conducted to demonstrate possible effects of Peyroniemev – plus (a POTABA based compound).

**MATERIAL & METHODS:** Forty-six patients were enrolled at this study (age: 45-67 years) with their diagnosis confirmed with penile ultrasound; photographic documentation of penile curvature; IIEF questionnaire; pain evaluation with Visual analogue pain Scale (VAS). They were divided into 2 treatment groups: A. - One tab Peironiemev – plus/daily + Verapamil injection (perilesional) 10mg/every 2 weeks; B. – Verapamil injection (perilesional) 10mg/every 2 weeks. This therapy continued for six months.

**RESULTS:** Intergroup analysis revealed statistically significant differences: In group A the effective plaque size reduction was -29.2% while at the B group was 17.3%. Improvement of curvature was present at 83% at group A; while at group B was 52.5%. IIEF score was significantly improved at group A.

**CONCLUSIONS:** Our study suggests that Peyroniemev-plus is effective and it helps to prevent the progression of Peyronie’s disease.

Eur Urol Suppl 2014; 13(7) e1576
INTRODUCTION & OBJECTIVES: Purpose: To evaluate long-term viability, quality of life and satisfaction with the semi-rigid penile prosthesis.

MATERIAL & METHODS: In this retrospective analysis we evaluated 273 men with erectile dysfunction who underwent malleable prosthesis implantation between January of 1996 and December of 2013 in single center. Patient information forms were completed, including patient history, surgical information and revision data. Patient satisfaction was evaluated over the phone or face-to-face appointments.

RESULTS: A total of 273 men with a mean age of 57.7 years (range 34 to 85) were evaluated after semi-rigid penile prosthesis placement. Average time from implant to follow up was 64±23 month. Only 3 device (1,1%) was removed due to infection.
Evaluation of the patient satisfaction revealed that 79,7% (119/143) extremely satisfied, 12,8% (19/143) were neither satisfied nor dissatisfied and 7,5% (11/143) were very dissatisfied. Of the patients 90,5% reported that it was very easy to use that the malleable prosthesis. Additionally 87,4% of the patients stated that they would recommend the prosthesis to their friends or when it is necessary undergo the procedure again.

CONCLUSIONS: Malleable penile prosthesis appears to be safe and effective. It is associated with a low rate of revision as well as high patient satisfaction.

Eur Urol Suppl 2014; 13(7) e1577
INTRODUCTION & OBJECTIVES: Conventional medical management of prolonged low-flow ischemic priapism is rarely effective. Surgical procedures such as distal or proximal shunt surgery are mandatory to divert blood away from corpus cavernosum. The aim of this study was to assess the outcome of the T-shunt surgery plus corporal tunneling for the treatment of prolonged ischemic priapism.

MATERIAL & METHODS: We reviewed the records of 14 patients treated with the T-shunt plus corporal tunneling. Patients were divided in subgroups according to the duration of priapism. All patients completed an IIEF-5 questionnaire to assess current erectile function.

RESULTS: A total of 14 patients were analyzed (age range 24 to 70 years). Median followup was 26.8 months (range 6 to 56). Priapism etiologies were idiopathic 4, antipsychotics 3, alpha blocker 2, intracavernous injection of vasoactive agents 4 and spinal cord injury in 1 patient. Mean priapism duration was 76 hours (range 22 to 168). Of the 14 men, 10 achieved successful resolution of priapism with no recurrence and 4 patients required a second procedure. Resolution of the priapism using T shunting plus corporal tunneling occurred in 85.7% patients with a priapism duration 36hrs. After a 26.8 month median followup, of 14 men 10 had normal erectile function preoperatively of whom 4 achieved at least partial erectile function postoperatively. The postoperative mean IIEF-5 score was significantly lower in patients with a priapism duration >36hrs than those of <36hrs.

CONCLUSIONS: The success of the T-shunt plus corporal tunneling and postoperative erectile function are dependent on the duration of priapism.

Eur Urol Suppl 2014; 13(7) e1578
INTRODUCTION & OBJECTIVES: Testicular cancer (TC) is a disease that can distort patients’ body image and contribute to the loss of attractiveness and masculinity. Additionally, treatment of TC, such as administration of systemic chemotherapy or RPLND, may potentially compromise sexual function. The aim of this study is to determine the prevalence of different types of sexual problems in long term testicular cancer survivors (TCS) in Serbia, and to examine possible influences on health-related quality of life (HRQoL).

MATERIAL & METHODS: This is a cross-sectional study involving 202 TCS with histologically verified germ cell tumors, regularly followed up for at least 1 year after surgical treatment and platinum based chemotherapy. Sexual function was assessed by a nine-item generic questionnaire containing dichotomy choice questions (yes/no) about erectile and ejaculatory function, sexual drive, and assessment of sexual life before and after the treatment. HRQoL was examined using Short Form 36 (SF-36) questionnaire.

RESULTS: The mean follow-up time since treatment was 47.3±26.8 months, and mean age of our patients was 35.5±9.5 years (range, 19–66). A total of 55 (27.3%) TCS reported decreased sexual function compared to the period before treatment. Any level of impairment of erectile function was reported by 42 (20.8%) patients and problems with ejaculation by 52 (25.7%) patients. Loss of desire was reported by 35 (17.3%) TCS. The presence of erectile dysfunction, loss of desire, and decreased sexual function statistically significantly associated with worse scores in all SF-36 domains including both composite scores and the total SF-36 score. Worse scores in physical functioning, role-physical, bodily pain, and general health, as well as both composite scores and the total score, statistically significantly associated with ejaculatory dysfunction.

CONCLUSIONS: We demonstrated that different types of sexual problems were associated with worse HRQoL in TCS and propose that counseling should be offered to patients regarding sexual problems.

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S266: Examination of prophylactic effect of verapamil hcl in testicular ischemia-reperfusion damage in rats

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INTRODUCTION & OBJECTIVES: In testicular torsion migration of neutrophils to ischemic region and formation of free oxygen radicals are important factors in occurrence of ischemia-reperfusion damage in testes. Verapamil HCl is a phenylalkylamine derivative of L-type voltage-dependent calcium channel blocker. In our study we evaluated propylactic effect of Verapamil in testicular ischemia-reperfusion damage.

MATERIAL & METHODS: Twenty one eight week adult male Wistar-Albino rats were randomly divided into three groups; Sham, I/R, I/R+Verapamil HCl. In Sham and I/R groups, saline was injected intraperitoneal at second hour; in I/R+Verapamil HCl group, Verapamil was injected intraperitoneal at second hour. Spermatogenic functions was evaluated according to Johnsen criteria and then average scores was calculated. p < 0,05 was statistically significant and in comparison of multiple groups analyses z > 1,96 was statistically significant.

RESULTS: After expected torsion-detorsion time, we compared al histopathological and molecular parameters derived from all groups. Average levels of inflammation mediators (TNF-α and IL-1β) derived from venous blood samples were calculated. In early period in compression with Sham group, TNF-α levels increased statistically significant in I/R group which didn’t receive any medical treatment. Also, we saw that Verapamil HCl treatment avoided increase in TNF-α level an provided same levels as in Sham group. Glutathione peroxidase (GPx) which is antioxidant in tissue levels were significantly more decreade in I/R group which didn’t receive Verapamil HCl as compared Sham group. Verapamil HCl avoided this situation. Although GPx expression scores (immunhistochemical examination) were higher in I/R group than Sham group, Verapamil HCl treatment take this scores to same levels as in Sham group. For spermatogenesis there were no statistically significant difference between groups according to Johnsen scoring system.

CONCLUSIONS: I/R generated by T/D, in early period it causes increase inflammation mediators in blood, it results with increase in GPx activity, it decrease anti oxidan capacity in tissue and it has no effect to spermatogenesis parameters in four hours period. Corruption in biochemical and histopathological parameters as a result of all this situations is reversed by treatment with verapamil HCl. In other words, verapamil HCl reduces damage in testicular I/R. The data of this experimental study reveals that verapamil HCl treatment of testicular torsion should be investigated.

Eur Urol Suppl 2014; 13(7) e1580
INTRODUCTION & OBJECTIVES: Increased mean platelet volume (MPV) has been considered to be a risk factor for vascular diseases (Andrologia, 2014 Jan 6). We aimed to determine a relationship between platelet activity and acute ischaemic priapism (AIP).

MATERIAL & METHODS: We retrospectively evaluated the total blood count reports of 30 healthy men and 20 patients who diagnosed AIP in our institute. We classified patients with AIP and controls as group 1 and group 2, respectively. Platelet (Plt) count, MPV and platelet distribution width (PDW) were considered to measure the platelet reactivity. At the time of submission the ages, MPV, PDW and platelet (Plt) values were recorded in both groups.

RESULTS: The median ages of group 1 and group 2 were 43 (IQR 34-55) and 45 (IQR 40-57), respectively. The median values of Plt, MPV and PDW in both groups were summarized in Table. Although Plt count was statistically significantly high in group 2, MPV values were statistically significantly high in group 1 (p<0,05). In group 1, mean PDW was higher than group 2; however, the difference were statistically insignificance (p>0,05).

Table. The median values of MPV, PDW and Plt count in group 1 and 2.

<table>
<thead>
<tr>
<th></th>
<th>Group 1</th>
<th></th>
<th>Group 2</th>
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<tbody>
<tr>
<td></td>
<td>median</td>
<td>IQR</td>
<td>median</td>
<td>IQR</td>
<td>p</td>
</tr>
<tr>
<td>MPV (fl)</td>
<td>8,52</td>
<td>7,5-10,6</td>
<td>7,6</td>
<td>6,9-7,8</td>
<td>0,001</td>
</tr>
<tr>
<td>PDW (%)</td>
<td>17,9</td>
<td>17,2-18,9</td>
<td>17,4</td>
<td>16,9-18,2</td>
<td>0,11</td>
</tr>
<tr>
<td>Plt (K/µL)</td>
<td>211</td>
<td>200-251,75</td>
<td>262</td>
<td>215,50-303</td>
<td>0,03</td>
</tr>
</tbody>
</table>

IQR: Interquartile range

CONCLUSIONS: Increased MPV and PDW values may have a more important role than increased Plt number on the vascular ethiology of AIP. Further investigations on the platelet reactivity may provide a guidance for the relevant vascular diseases.

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S268: Our experience in the surgical treatment of Peyronie's disease

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**INTRODUCTION & OBJECTIVES:** Surgical treatment is a therapeutic option for patients in a mature and stable stage of Peyronie’s disease. Method of plaque incision and insertion of the graft at the site of a defect to patients with erectile dysfunction, and installation of the penile prosthesis, provides a good functional results. Here we present our first experiences.

**MATERIAL & METHODS:** From April 2013th until April 2014, we operated 8 patients with Peyronie Mb, aged 49 to 68 years. With intracavernosal PGE1 assay to five patients was determined erectile dysfunction. Duration of symptoms was an average of 1.8 years (1-3 years). Of the total number, five patients had plaque in the middle 1/3, two in the distal 1/3, while at one patient plaque affected the middle and distal 1/3 of the dorsal side of the body of the penis. The average length of the plaque was 3 cm (1-5 cm). Comorbidity - hypertension and diabetes mellitus type 2, was found in three patients and one patient was on active monitoring for prostate cancer. 3 patients with preserved erectile function, plaque was resolved “H” incision, and then the resulting defect covered bovine pericardium graft. In the remaining five patients plaque tunica albuginea is resolved relieving incision and associated erectile dysfunction installing semi-rigid penile prosthesis. The duration of the operational procedure was 68 min (55 - 90 min). Remission of patients has been the 4th postoperative day (2 to 6 days). Postoperatively, to patients where bovine pericardium graft was used, was suggested the use of tadalfil tablets 20 mg every third day during the first month in order to prevent shrinkage of the graft and recurvatum of the penis. After this period, the patients were advised to use a vacuum device for stretching the penis, the following 6 months.

**RESULTS:** The follow-up period was 11 months (range 2 - 14 months). None of the patients received penile recurvatum. Patients with implanted semi-rigid penile prostheses have penile rigidity that allows sexual intercourse. During this period, only to one patient (12%) was developed clinical symptoms of graft rejection, which is still being treated conservatively.

**CONCLUSIONS:** The technique of replacing defect to tunica albuginea bovine pericardial grafts, and postoperatively with continued therapy with tadafal and with apparatus for stretching the penis, gives good results in the treatment of Peyronie's disease. If Peyronie's disease is associated with erectile dysfunction, excellent functional result is achieved by installing penile prosthesis.

Eur Urol Suppl 2014; 13(7) e1582
INTRODUCTION & OBJECTIVES: Penile girth augmentation (PGA) is a procedure performed mostly for middle-aged men with sexual dysfunction and/or sexual dissatisfaction yielding mixed results. This procedure poses risks for severe complications both in the short-term and long-term depending on the type of material used and technique utilized. Several types of filler materials exist with limited evidence on consequences of such a procedure. A small number of case reports and case series reported long-term complications of PGA fillers. Objective: To review cases that presented to our department between 2009 and 2014 with Long-term complications of PGA fillers; and review of the literature in regards to incidence, presentation and treatment of infected PGA fillers.

MATERIAL & METHODS: A retrospective review of our department’s database was performed to identify cases that presented between 2009 and 2014 with long-term complications of PGA fillers. Patient demographic and clinical details were collected as well as type of filler material used. Literature review was performed to identify other center experiences with such a procedure and their management approaches.

RESULTS: Five cases were identified in our center with penile skin necrosis and underlying abscess formation from PGA fillers. Mean patient age at presentation was 40.1 years (range 30-48 years) and mean time to presentation post augmentation was 4.6 years (range 2-7 years). All cases underwent surgical debridement and one case required skin grafting. All patients regained full sexual function on follow up.

CONCLUSIONS: Use of PGA fillers can result in long-term penile skin necrosis and abscess formation years after implantation requiring surgical intervention. We report our experience with this long-term complication which is in keeping with the published literature. Patient education, proper technique and use of appropriate filler material are crucial to the success of this procedure and to avoid unwanted complications.

Eur Urol Suppl 2014; 13(7) e1583
INTRODUCTION & OBJECTIVES: We aimed to identify serum prolidase activity, oxidative stress, and antioxidant enzyme levels in patients with testicular cancers and to evaluate their relationships with each other.

MATERIAL & METHODS: A total of 33 male patients with testicular cancer and with a mean age of 25.3 ± 11.1 were included in the study. The control group comprising 35 male patients (mean age 27.4 ± 8.2) was randomly selected among the volunteers. Serum samples for measurement of superoxide dismutase (SOD), glutathione peroxidase (GSHPx), glutathione-S-transferase (GST), malondialdehyde (MDA), glutathione (GSH), and prolidase levels were kept at 20°C until they were used.

RESULTS: Serum prolidase activity and MDA levels were significantly higher in testicular cancer patients than in controls (all, p < 0.05), while SOD, GSHPx, and GST levels were significantly lower (p < 0.05).

CONCLUSIONS: Our results indicate that increased prolidase seems to be related to increased oxidative stress along with decreased antioxidant levels in testicular cancer.

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S271: Red Korean gingseng’s prevention in rats exposed to testicular ischemic/reperfusion damage

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INTRODUCTION & OBJECTIVES: Testicular torsion, neutrophil chemotaxis to the ischemic region and the generation of free oxygen radicals are potent factors that form ischemia-reperfusion damage in testis. Red Korean Gingseng is a plant that have been used in Far-East since prehistoric times and effected multiple systems in the body with the content of saponins. In our research, we aim to quest the preventative effects of the red Korean gingseng in testical reperfusion damage caused by ischemia.

MATERIAL & METHODS: 8 week old, 21 adult male Wistar-Albino rats were randomised into 3 groups; Sham, I/R, I/R + Red Korean Gingseng. Intraperitoneal SF was given to Sham and I/R groups at the second hour; 10mg/kg intraperitoneal red Korean gingseng was given to the third group whilst detorsion Spermatogenic functions were evaluated according to Johnsen criteria and average scores were calculated for each testis. P1.96 was accepted statistically significant.

RESULTS: Hystopathologic and molecular parameters acquired from all groups are compared after the predicted torsion-detorsion durations. (T/D) The average levels of the inflammation mediators (TNF-α and IL1-β) were calculated from the venous blood samples. In the I/R group in which no treatment were given, TNF-α levels were observed significantly higher than the sham group and in the group exposed to red Korean gingseng, it was similar to the I/R group. Likewise, glutation peroxidase (GPx) levels which act as an antioxidant in the tissue were decreased significantly in the I/R group which is not exposed to red Korean gingseng compared to the Sham groups and the red korean gingseng was determined not preventing this circumstance. GPx expression scores which are evaluated immunocytochemically were increased in the I/R group compared to the sham groups while the red Korean gingseng therapy’s effects were similar to the I/R group. No statistical significant difference were found between the groups in the point of spermatogenesis which is hystologically evaluated by Johnsen scoring system.

CONCLUSIONS: I/R by the cause of T/D, increases the inflammation mediators in blood, increases the activity of GPx, decreases the antioxidant capacity in the tissue and does not interfere with the spermatogenesis parameters in a period of 4 hours. As a result, the biochemical and hystopathological deterioration which is developed cannot be reversed with red Korean gingseng therapy. In conclusion, red Korean gingseng is not effective in reducing the damage caused by I/R in the testis.

Eur Urol Suppl 2014; 13(7) e1585
S272: Evaluation of protection of isosorbid-5-mononitrate in rats with testicular ischemia-reperfusion damage

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INTRODUCTION & OBJECTIVES: Torsion of testicle, migration of neutrophiles to ischemic region and formation of free oxygen radicals are important factors in formation of ischemic reperfusion damage (I/R) in testicle. Isosorbid-5-mononitrat is a nitrate derivative which causes vasodilatation by stimulating protein kinase via intracellular cGMP. In our study, the aim was evaluation of protection of isosorbid-5-mononitrate in reperfusion damage in testicles as a result of I/R.

MATERIAL & METHODS: Twenty one male adult Wistar-Albino rats with eighty months randomly divided into three groups; Sham, I/R, I/R + Isosorbid-5-mononitrat. While in sham and I/R groups intraperitoneal SF was given in second hour, in I/R+isosorbid-5-mononitrate groups 2mg/kg intraperitoneal isosorbid-5-mononitrate was given in detorsion. Spermatogenic factors was evaluated according to Johnsen criteria and average scores was calculated for each testicle. p value of 1,96 was considered statistically significant in multiple group comparison

RESULTS: After predicted torsion-detorsion times histopathological and molecular parameters from all groups were compared. Average values of inflammatory mediators(TNF-a and IL-b) in venous blood samples were calculated. We identified that TNF-a values was statistically significant increased in I/R group than sham groups and treatment of isosorbid-5 mononitrate get these value to same level with sham groups by protecting of increase in TNF-value. We observed that glutathione peroxidase antioxidane, antioxidant in tissue, levels was statistically significant decreased in I/R group than sham group and treatment of isosorbid-5-mononitrate inhibited these situation. GPx expression scores evaluated immunhistochemically was statistically significant increased in I/R group than sham groups and isosorbid mononitrate get these values to same levels with sham groups. In evaluation of spermatogenesis by using Johnsen scoring system there was no statistically significant difference in average scores between groups.

CONCLUSIONS: I/R as a result of T/D causes increase in inflammatory mediators in blood, increase in GPx activity, decrease in antioxidant capacity in tissue and no effect in spermatogenesis parameters for four hours. As a result deterioration of biochemical and histopathological parameters are reversed by isosorbid-5-mononitrate treatment. In other words isosorbid-5-mononitrate decrease damage because of I/R in testicle. Results of these experimental study shows us that availability of isosorbid-5 mononitrate treatment in testicle torsion should be studied.

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**S273: Testicular cancer awareness and self-examination in Belgrade university students**


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**INTRODUCTION & OBJECTIVES:** With the introduction of cisplatin-based chemotherapy, TC has become curable in up to 95% of patients. Having in mind these high cure rates, most patients can be salvaged despite advanced stages. However, more advanced disease usually necessitates more extensive chemotherapy or surgery. As a consequence of treatment there is an increased risk of late cardiovascular, pulmonary, renal toxicity, ototoxicity and neurological sequelae. Timely diagnosis of TC can provide the opportunity to treat these patients at early stages of disease and thus minimize long-term morbidity. The high level of awareness of the disease and testicular self-examination (TSE) may contribute to the earlier detection of TC. The aim of this study is to examine the TC awareness and prevalence of TSE in Belgrade university students.

**MATERIAL & METHODS:** This is a cross-sectional study involving 414 male students of University of Belgrade (Faculty of mechanical engineering, Faculty of Economics, and Faculty of Sport and Physical Education). Data was collected before the start of compulsory practical sessions in the classrooms, and the questionnaires were distributed to all attending male students. The investigators introduced the study in detail to the students in the classrooms before distributing the questionnaire. The questionnaire consisted of 13 questions regarding TC knowledge, age of onset, presenting symptoms, cure rates, knowledge of TSE, performance of TSE, and desire for further information on TC.

**RESULTS:** Mean age of studied population was 22.8 years (range 18-32). Hundred and one (24.3%) students reported that they thought they had any knowledge about TC, while 124 (30%) students answer correctly the question regarding the age of onset, 45 (10.9%) answered correctly about the symptoms, and 28 (7%) answered correctly the question concerning the cure rates. Sixty-eight (14.4%) students reported that they know how to perform TSE, whereas 58 (14%) of them preform TSE at least once a year. Finally, 349 (84.2%) students have stated that they would like to learn more about TC and TSE.

**CONCLUSIONS:** We have concluded that TC awareness and TSE prevalence is relatively low, even in a population with high education profile. There is a need of increasing public awareness about TC and prevalence TSE in Serbia.

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S274: Evaluation of protection of udenafil in rats with testicular ischemia-reperfusion damage

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INTRODUCTION & OBJECTIVES: Torsion of testicle, migration of neutrophiles to ischemic region and formation of free oxygen radicals are critical factors in formation of ischemic reperfusion damage (I/R) in testis. Udenafil is selective, strong and reversible inhibitor of cyclic guanosine monophosphate (cGMP)- specific phosphodiesterase type (PDE-5) enzyme in corpus cavernous. In our study our purpose was evaluation of protection of udenafil in reperfusion damage in testis as a result of I/R.

MATERIAL & METHODS: Twenty one male adult Wistar-Albino rats with eighty months randomly divided into three groups; Sham, I/R, I/R + udenafil. While in sham and I/R groups intraperitoneal SF was given in second hour, in I/R+udenafil groups 1mg/kg intraperitoneal udenafil was given in detorsion. Spermatogenic factors was evaluated according to Johnsen criteria and mean scores was calculated for each testicle. While p value of 1.96 was considered statistically significant in multiple group comparison

RESULTS: Histopathological and molecular parameters from all groups were compared after predicted torsion-detorsion times. Mean values of inflammatory mediators(TNF-a and IL-b) in venous blood samples were calculated. We observed that TNF-a values was statistically significant increased in I/R group than sham groups and udenafil treatment get these value to same level with sham groups by protecting of increase in TNF-value. We saw that glutathione peroxidase levels was statistically significant decreased in I/R group than sham group and treatment of udenafil avoided these decrease. GPx expression scores evaluated immunhistochemically was statistically significant increased in I/R group than sham groups and udenafil get these values to same levels with sham groups. In evaluation of spermatogenesis by using Johnsen scoring system there was no statistically significant difference in mean scores between groups.

CONCLUSIONS: I/R as a result of T/D causes increase in inflammatory mediators in blood, increase in GPx activity, decrease in antioxidant capacity in tissue and no influence in spermatogenesis parameters for four hours. We can say that as a result deterioration of biochemical and histopathological parameters are reversed by isosorbid-5-mononitrate treatment. In other words udenafil decrease damage because of I/R in testicle. Results of these experimental study shows us that availability of udenafil treatment in testis torsion should be studied.

Eur Urol Suppl 2014; 13(7) e1588
INTRODUCTION & OBJECTIVES: The prevalence and increasing incidence with age, of Helicobacter pylori (HP) infection which is a gastric pathology that have extragastric effects, are similar to those of benign prostatic hyperplasia (BPH). Although many virulence factors were defined for HP, vacuolating cytotoxin (VacA) is known to be associated with apoptosis, and cag pathogenicity island (Cag-PAI) with growth factors. It is known that, both apoptosis and growth factors are supposed to be related with etiogenesis of BPH. Besides, the relation between atherosclerosis-BPH and atherosclerosis-HP had also been reported in the limited studies. The aim of this pioneer study is to investigate the presence of HP in BPH patients who had undergone transurethral prostatectomy (TURP) and discuss the potential pathophysiologic effect of HP on BPH.

MATERIAL & METHODS: A total of 113 cases who underwent TURP because of infravesical obstruction due to BPH in our clinic between June 2012, and June 2013 were included in the study. Medical histories of the patients were obtained. Preoperatively, parameters including, age, height, body weight, body mass index (BMI), prostate specific agent (PSA), prostate volume (PVo), maximum flow rate (Qmax), fasting plasma insulin (FPI), and International Prostate Symptom Score (IPSS) values were evaluated. In prostate specimens the presence of HP was investigated using real-time PCR (RT-PCR) method. Postoperatively, histopathological evidence of chronic prostatitis (hCP) was also analyzed.

RESULTS: HP was detected in 1.8 % (n=2) of the participants. Besides, hCP was seen in 58.4 % (n= 66) of 113 patients. Demographic and clinical parameters confirmed the BPH disease.

CONCLUSIONS: Although BPH is a common disease, its etiophysiologic mechanisms are not so clear. Based on our pilot study, despite of its gastric location, we think that HP should be considered in cases with clinical BPH, depending on the fact that HP induces apoptosis and alterations in the equilibrium between apoptosis and local growth factors, in addition to its recently shown extragastric effects via atherosclerotic pathway. Even though our uncontrolled pioneer study was not designed to investigate pathophysiologic mechanism, isolation of HP from prostatic adenoma is pointing to need of further well designed studies on this topic.

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S276: Helicobacter pylori and urinary system stones

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INTRODUCTION & OBJECTIVES: Helicobacter pylori (H. pylori, HP) is a gram-negative bacteria that selectively colonizes the gastric mucosa and focus of attention because of its relation in extragastric gastrointestinal disorders and even this relation extends to some atypical extra-intestinal disorders such as Lung cancer and Alzheimer. There has been some evidence that HP is related with some Urologic disease such as chronic cystitis leading to bladder lymphoma and loose association with prostate cancer. HP known to increase the incidence of gallstone and moreover, having gallstone is an independent risk factor of kidney stone. However, to our knowledge, there is no study to investigate the presence of any effect of HP on urinary stone disease. Thus in this study, we evaluate the possible relation between HP and urinary system stones and discuss the possible theories.

MATERIAL & METHODS: In this retrospective study, we documented the incidentally diagnosed urinary system stones with Ultrasonography (USG) in patients who underwent gastric biopsy for any reason in a certain period in a single center. We divided the patients into two groups as HP positive (+) and negative (-) and reported the kidney stone positivity for each group.

RESULTS: Demographic characteristics were similar for each group. The urinary system stone positivity for the groups with HP + (n:110) and HP - (n:45) were 9 and 1 respectively. The difference was significant.

CONCLUSIONS: In some unconfirmed theories to explain the direct correlation between gallstone and urinary stone disease; the shift of intestinal microbial flora from Oxalabacter formiges that metabolizes intestinal oxalate may reduce the risk of renal stone to HP which induce gallstone was mentioned. However, HP supposed to have some extragastrointestinal system effects via inducing atherosclerotic and apoptosis pathways. The most popular urolithiazis theory includes the subepithelial Randall plaque in Henle loop system as analogously similar in atherosclerosis. The present pioneer study pointing a positive correlation between HP and renal stones; however we think that this effect is due to the possible recently unidentified systemic influence of HP other than direct bacteriologic effect.

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S277: Intrauterine device migration to two different localizations resulting in bladder stone and carrying the risk of vesicovaginal fistula

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**INTRODUCTION & OBJECTIVES:** Intrauterine devices (IUD) are one of the most commonly used methods for contraception. Although these devices are safe, some complications exist. Here we report a woman with the urinary manifestations started 14 years after IUD insertion. The present case is helpful to review a possible complication of these devices.

**MATERIAL & METHODS:** A 38 year old woman presented with dysuria, frequency and suprapubic pain for six months. She also complains about the difficulty in voiding. For more than one year, she had recurrent urinary tract infections. An intrauterine device has been placed in her 15 years ago and she had been pregnant twice after the insertion of that device without any contraceptive methods. The first pregnancy was after one year the device has been placed in. It was told that the device might have been fallen by her gynecologist. On physical examination including the pelvic exam, no abnormality was detected. At two consecutive urinalysis hematuria was detected. On her pelvic X-ray a radio-opacity that suggests a bladder stone with a 3x2 cm size and a T shaped IUD on the suprapubic region was found. The IUD was not complete and a small part of it was missing. After a careful look, the missing part was seen along with the bladder stone. (fig 1) Abdominal ultrasound also reported the bladder stone. After a successful cystolithotripsy the stone fragments were removed. The small disjointed part of the IUD was found in the center of the stone and also removed from the bladder. (fig 2) The patient was discharged without any complication on the postoperative first day with the recommendations of gynecologic control as the main part of the IUD was carrying a risk of fistula formation. It was soon learnt that the gynecologists removed the remainder of the IUD via surgery. Also her urinary symptoms resolved after the stone removal.

**RESULTS:**

**CONCLUSIONS:** To our best of knowledge it is the first case of an IUD partially migrated to bladder and partially to a location between bladder and uterus. In patients with bladder stones a foreign body must be in mind. Also if a suspect occurs for the inappropriate placing of IUD, migration of the device must also be considered. Endoscopic procedures are easy and successful methods in intravesically migrated devices and the mostly the first treatment

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Fig 1. Radio-opacity with the fragmented IUD in the lower pelvis
Fig 2. Cystoscopic view of the missing part of the IUD with stone formation in the bladder

Eur Urol Suppl 2014; 13(7) e1591
INTRODUCTION & OBJECTIVES: To assess nephroprotective effects of Montelucast Sodium and N-Acetylcysteine (NAC) on seconder renal damage due to unilateral ureteral obstruction in a rat model.

MATERIAL & METHODS: In this study 30 Wistar albino male rats were randomized into 3 groups; placebo, N-Asetylsistein and Montelucast Sodium. Three rats were spared for control group. Left ureters of rats were sutured with 4/0 polyglactin sutures. Medications were given three days before obstruction and were continued for 15 days. DMSA was performed before obstruction and at 15th day. Rats were sacrificed at 15th day and histopathological examinations were done and oxidative stress markers (Myeloperoxidase (MPO) levels, Malondialdehyde (MDA) and SH levels, and Total Nitrite levels for lipid peroxidation, oxidative protein damage, antioxidant levels, respectively) were assessed biochemically.

RESULTS: In pathological examination inflammation and tubuler epithelial damage in NAC and montelucast groups were less than placebo group (p<0,05). No difference was seen in normal kidneys. MPO, MDA and Total Nitrite levels in NAC group and MPO and MDA levels in montelucast group were lower than placebo group (p<0,05). No difference was seen in SH levels statistically (p>0,05). No statistically significant differences were seen between NAC, Montelucast Sodium and placebo groups in scintigraphic examination (p>0,05). No pathological, chemical and scintigraphic differences were seen between NAC, montelucast sodium and sham groups (p>0,05).

CONCLUSIONS: N-Acetylcysteine and Montelucast Sodium have protective effect against obstructive damage of the kidney but we need further investigations.

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How to improve vision in ordinary cystoscopy in certain cases

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INTRODUCTION & OBJECTIVES: There is a problem in vision of cystoscopy in certain cases including malignant contracted bladder, haemorrhagic cystitis, limited bladder capacity, neurogenic bladder and gross haematuria. Which may lead to failure of screening the bladder, fixation of stents, taking biopsy and/or haemostasis. Up to our knowledge there is no reports mentioned the use of continuous irrigation cystoscopy in improving vision in such cases.

OBJECTIVE:
To evaluate the effectiveness of using continuous irrigation sheath for improving the vision of cystoscopy when the vision is poor in such above mentioned cases.

MATERIAL & METHODS: Between May 2013 and February 2014, continuous irrigation cystoscopy was used in 10 cases where there is a poor vision by ordinary cystoscopy, 4 cases of neurogenic bladder, 3 with bladder tumor filling most of the bladder and 3 with gross haematuria. The outcome was to compare quality of vision between the continuous irrigation cystoscopy and the ordinary cystoscopy.

RESULTS: In all cases, the use of the continuous irrigation cystoscopy showed significantly improvement in quality of vision in comparison to the ordinary cystoscopy and success in taking biopsy, stent fixation or screening of the bladder which failed by ordinary cystoscopy in view of poor vision.

CONCLUSIONS: The use of the continuous irrigation cystoscopy considered a good option to overcome the poor of vision of the ordinary cystoscopy in certain conditions.

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S280: Correlation between symptomatology and urodynamic findings in adult urinary incontinent females

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INTRODUCTION & OBJECTIVES: The correlation between symptomatology and urodynamic findings in adult females with urinary incontinence was investigated.

MATERIAL & METHODS: The all female patients older than 16 years with urinary incontinence not related to neurologic disorders referred to the female urology unit were conducted retrospectively. Routine urine culture after taking detailed genitourinary story was performed in all patients. Urodynamic technique was based on standards of the International Continence Society (ICS). Patients with organic bladder pathology, extraurethral urinary incontinence, neurologic bladder disorders and with not correctly detected Valsalva Leak Point Pressure (VLPP) values were dropped out of research’s scope. Patients were grouped according to symptomatology as stress, urge and mix. Of the totally 484 patients 110 were in urge, 95 in stress and 279 in mix group. Patients were grouped again according urodynamic results as Detrusor Overactivity (DO), Urodynamic Stress Incontinence (USI), Mix and Normal. Correlation between symptomatology and urodynamic findings were investigated statistically.

RESULTS: Urodynamic findings listed in Table 1.

<table>
<thead>
<tr>
<th>Symptom</th>
<th>DO (N/%)</th>
<th>USI (N/%)</th>
<th>Mix (N/%)</th>
<th>Normal (N/%)</th>
<th>Totally</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urge</td>
<td>42(38.19)</td>
<td>12(10.91)</td>
<td>14(12.73)</td>
<td>42(38.18)</td>
<td>110</td>
</tr>
<tr>
<td>Stress</td>
<td>8(8.42)</td>
<td>47(49.47)</td>
<td>8(8.42)</td>
<td>32(33.68)</td>
<td>95</td>
</tr>
<tr>
<td>Mix</td>
<td>41(14.7)</td>
<td>112(40.14)</td>
<td>49(17.56)</td>
<td>77(27.6)</td>
<td>279</td>
</tr>
<tr>
<td>Totally</td>
<td>91(18.8)</td>
<td>171(35.33)</td>
<td>71(14.67)</td>
<td>151(31.19)</td>
<td></td>
</tr>
</tbody>
</table>

Table 1.

Sensitivity, specificity, predictivity and accuracy values are listed in Table 2.

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Pure stress</th>
<th>Pure Urge</th>
<th>Mix</th>
<th>Pure stress</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urodynamic Finding</td>
<td>Pure USI</td>
<td>Pure DO</td>
<td>Mix</td>
<td>USI</td>
</tr>
<tr>
<td>Sensitivity</td>
<td>26.9</td>
<td>41.6</td>
<td>65.3</td>
<td>21.7</td>
</tr>
<tr>
<td>Specificity</td>
<td>85.8</td>
<td>83.5</td>
<td>47.5</td>
<td>86.1</td>
</tr>
<tr>
<td>Positive Predictive Value</td>
<td>49.5</td>
<td>38.2</td>
<td>17.6</td>
<td>52.9</td>
</tr>
<tr>
<td>Negative Predictive Value</td>
<td>69.4</td>
<td>85.4</td>
<td>88.8</td>
<td>60.6</td>
</tr>
<tr>
<td>Accuracy</td>
<td>65.7</td>
<td>75.2</td>
<td>50.1</td>
<td>59.2</td>
</tr>
</tbody>
</table>

Table 2.
CONCLUSIONS: Patient symptomatology is not giving reliable information at urinary incontinence diagnostics in females. It’s advised to perform urodynamic tests in evaluation of adult female patients with urinary incontinence.

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S282: Endo-laparoscopy approach to removing tape erosion to the bladder

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INTRODUCTION & OBJECTIVES:

MATERIAL & METHODS: Between Januar 2008 – May 2014 eleven women were treated due to tape erosion to the bladder. 2 patient present pain of the pelvis with difficult voiding and recurrent urinary infection, eight had recurrent infection of the urinary tract and in ultrasound examination the stone of the bladder was preset. In all patients we performed cystoscopy which demonstrated tape erosion on the one of lateral wall of the bladder with encrustation of the tape by eight patients. Patients underwent successfully laser or pneumatic lithotripsy of the stone. Then we introduced under endoscopy view two or three 5 mm trocars to the bladder two finger above symphysis pubis. Using five mm laparoscopy 30 degree optic, scissors and dissector eroded tapes were removed. The bladder catheter were left for three days. All patients were discharged home on the third day after surgery. After the procedure, patients were examined after 1, 3 and then every 6 month. All patients underwent cystoscopy 3 months after operation. Then during the control visit bladder ultrasound and urine culture was performed.

RESULTS: The bladder mucosa was hilled without any symptoms of recurrent erosion 3 month after operation. After 3 years we have seen in ultrasound two secondary tape erosion with encrustation in previously operated patients. Both were operated with removing stones and tape with holmium laser in one case and in second with repeated presented method. After operation we did not observed pelvic pain or recurrent urinary infection.

CONCLUSIONS: The endo laparoscopy approach could be safe and effective option in treatment of tape erosion to the bladder in women after tape insertion due to urinary incontinence.

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S283: Development of inguino-scrotal fistula after radical orchiectomy for testicular tuberculosis mimicking testicular cancer

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INTRODUCTION & OBJECTIVES: Tuberculous epididimo-orchitis is a very rare but severe form of extra-pulmonary tuberculosis. We report a case of inguino-scrotal fistula in a patient who underwent inguinal orchiectomy for isolated testicular tuberculosis, which cannot be distinguished from testicular cancer.

MATERIAL & METHODS: A 20 year-old man presented with the complaint of right testicular swelling without clear pain. At physical examination a painless, solid mass was palpated at the lower pole of the right testis with normal epididym. Tumor markers were normal. Scrotal ultrasonography demonstrated a heterogen, hipoechogenic solid mass in 33x33x28 mm diameter in the right testis. Patient was considered as testicular cancer and right inguinal orchiectomy was performed. Testicular mass was perforated at the time of blunt dissection and mucopurulan leakage from the mass was noted. Inguino-scrotal fistula developed 30 days after the operation. Final pathology revealed tuberculous orchitis. Evidence of pulmonary/extrapulmonary tuberculosis was not found neither clinically nor radiologically. Antituberculosis treatment was initiated after the pathology report (isoniasid 100 mg tb 1x3, rifampycine 300 mg tb 1x2, ethambutol 500 mg tb 1x3, pyrazinamide 500 mg tb 1x4 for 2 months; maintenance dose: isoniasid 100 mg tb 1x3, rifampycine 300 mg tb 1x2 for 6 months). The wound healed secondarily after antituberculosis treatment.

RESULTS:

CONCLUSIONS: Isolated testicular tuberculosis is a very rare condition and it is impossible to distinguish such a testicular swelling from testicular cancer, especially in countries where tuberculosis is endemic.

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S284: Impact of adding aminoglycoside to the antibiotic regimen for transrectal ultrasonography (TRUS)-guided prostate biopsy prophylaxis

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INTRODUCTION & OBJECTIVES: Transrectal ultrasound guided (TRUS) prostate biopsy is the gold standard test to diagnose prostate cancer after a suspicious digital rectal exam and elevated Prostate Specific Antigen. Occasionally this procedure is associated with morbidity and mortality including infection and bleeding. In this manuscript, we compare the incidence of post TRUS-related infection at a tertiary medical center in Lebanon in comparison to data published 10 years ago after adding aminoglycoside to the prophylactic regimen.

MATERIAL & METHODS: We conducted a retrospective study in a single tertiary medical center in Beirut between January 1, 2011 and June 31, 2013, involving 232 men. Hospital admission charts were reviewed. Urinary tract infection was defined by the presence of two of following: urinary symptoms, leukocytosis, and/or fever more than 38.0 C orally. We compared our results with data published by otrock et al. 10 years ago from the same institution, which included 207 patients and conducted between June 1, 2002, and August 31, 2003.

RESULTS: Of the 232 patients who underwent TRUS biopsies of the prostate 9 (3.9%) patients met the criteria of urinary tract infection and were admitted during our study period, compared to 6.3% admission rate in the same institution 10 years ago. 75% of the patients who developed febrile UTI had positive urine culture and 7% had positive blood culture versus 61.5% of patients had positive urine culture and 46.2% had positive blood culture as reported 10 years ago. The most common organism isolated on cultures in both eras was E.coli with resistance to Fluoroquinolones.

CONCLUSIONS: Despite the data from our center that shows an increase in the rate of resistant bacterial strains, the addition of Aminoglycosides to fluoroquinolone as prophylactic antibiotic has decreased the admission rate post TRUS biopsy.

Eur Urol Suppl 2014; 13(7) e1597
INTRODUCTION & OBJECTIVES: Emphysematous pyelonephritis is an acute necrotizing infection of renal parenchyma and perirenal tissues usually seen at diabetic patients and requires emergent approach. In this study, we aimed to present our emphysematous pyelonephritis experiences and treatment approaches.

MATERIAL & METHODS: We evaluated the follow-up reports of 12 patients treated in our clinic with the diagnosis of emphysematous pyelonephritis in between January 2008-June 2014 retrospectively. Clinical and demographic data of patients are interpreted.

RESULTS: Ratio of male to female was 1. The mean age of patients was 57.7±17.9 years-old (range between 26-82 years-old). 8 of the patients (66.6%) had have urinary system pathology in addition with diabetes mellitus and 4 patients had have only urinary system calculi leading to obstruction history. Culture was positive in 75% of patients. All patients immediate intravenous broad-spectrum antibiotic therapy was started. 8 patients underwent emergency nephrectomy. Percutaneous drainage was performed to 4 of patients in first 24 hours. 1 patient applied nephrectomy was died. All of other patients recovered by responding well to treatment.

CONCLUSIONS: Emphysematous pyelonephritis is a life threatening condition requiring emergent approach. Percutaneous drainage or emergent nephrectomy may reduce the mortality and morbidity.
S288: Rat epididymis can induce hamster sperm maturation

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INTRODUCTION & OBJECTIVES: We evaluated whether there are alterations in hamster sperm fertilizing capacity during passage through rat epididymes.

MATERIAL & METHODS: Hamster spermatogonia recovered from mature animals (n=8; 8-week-old) were transplanted microsurgically into the seminiferous tubuli of immunodeficient nude rats (n=8) (three-week-old). Twelve weeks later all the recipient rats were killed and transmission electron microscopy was applied in the recipient testes. Hamster spermatids can be easily differentiated from rat spermatids since in hamster spermatids the mitochondria are randomly distributed into the cytoplasm, whereas, in rat spermatids the mitochondria are strictly located peripherally. In addition, hamster spermatozoa were recovered from five rat epididymes and processed for intracytoplasmic injections (ICSI techniques) into hamster oocytes.

RESULTS: Hamster spermatids were demonstrated in five recipient rat testes bilaterally. ICSI techniques using hamster spermatozoa recovered from five rat cauda epididymes resulted in significantly larger fertilization rate (P<0.05; Wilcoxon test for paired observations) compared with ICSI techniques using hamster spermatozoa recovered from rat caput epididymes. In addition, hamster spermatozoa recovered from rat cauda epididymes demonstrated significantly smaller progressive motility than hamster spermatozoa recovered from rat cauda epididymes.

CONCLUSIONS: The current findings suggest very vividly that rat epididymis can induce alterations in hamster sperm motility and in the overall fertilizing capacity. Thus it appears that hamster spermatozoa can undergo biochemical alterations during passage through a xenogeneic epididymis and can improve their fertilizing potential suggesting that epididymal sperm maturation process is not a species dependent process.

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S292: Risk factors associated with postoperative complications following radical cystectomy

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**INTRODUCTION & OBJECTIVES:** Bladder cancer is the most often occurring cancer in the urinary system. At the time of diagnosis, one third of cases are already muscle invasive requiring radical cystectomy with or without chemotherapy and radiation therapy. Radical cystectomy is associated with high rates of postoperative complications. The aim of the study was to assess postoperative complications of radical cystectomy in Armenia and explore associated risk factors.

**MATERIAL & METHODS:** The study utilized a retrospective cohort design. Study population included all patients who have undergone radical cystectomy followed by either continent or conduit urinary diversion from 2005 to 2012 in all hospitals of Armenia. Detailed medical chart review was conducted extracting information on baseline demographic and clinical characteristics, surgical intervention, postoperative management and in-hospital complications.

**RESULTS:** The total study sample included 273 patients with radical cystectomy. The mean age (sd) of the patients was 58.5(8.9) years and the majority (n=255, 93.4%) were men. Overall, 28.9% (n =79) of patients experienced at least one in-hospital complication. The hospital mortality rate was 4.8% (n =13). The most commonly reported complications were postoperative ileus (n = 20 or 7.3%), wound infection (n =19 or 7.0%), pyelonephritis (n = 13 or 4.8%), and wound dehiscence (n = 9 or 3.3%). Multiple logistic regression analysis revealed that coronary artery disease (OR=2.44, 95% CI: 1.20 – 4.96, p=0.01), receiving a transfusion (OR=2.40, 95% CI: 1.36 – 4.24, p<0.01) and hospital volume (OR=2.09, 95% CI: 1.03 – 4.24, p=0.04 for the second higher volume hospital compared to the highest volume) were the significant predictors of postoperative complications.

**CONCLUSIONS:** The rate of postoperative complications following radical cystectomy in Armenia was similar to those observed in other countries. Hospital volume, presence of coronary artery disease and receiving transfusion were significant predictors of complications. Future prospective studies should evaluate the long-term outcomes, costs of the complications as well as the appropriateness of perioperative transfusion. Hospitals should standardize and improve the management of high risk patients. National health policy decisions makers should consider the evidence from this study with respect to observed association between hospital volume and risk of complications.

Eur Urol Suppl 2014; 13(7) e1600
INTRODUCTION & OBJECTIVES: Delirium is well defined and is described in the Diagnostic and Statistical Manual of Mental Disorders fourth edition (DSM-IV–TR;). The key characteristics are a change in mental status characterized by a reduced awareness of the environment and a disturbance in attention. This may be accompanied by other, more florid, perceptual symptoms (hallucinations) or cognitive symptoms including disorientation or temporary memory dysfunction. The patient may express hypoactive, hyperactive, or mixed psychomotor behaviours.

The purpose of this study is to discover if there is a relation between the number of used medicaments and the delirium incidence.

MATERIAL & METHODS: In this study are included all patients aged over 65 years old admitted in the clinic of urology, who underwent surgery. The study is prospective. Are excluded from the study patients diagnosed and treated before operation with: Alzheimer’s and other dementia disease, Parkinson’s disease, acute cerebral-vascular disease and with mental disorders. Period of study was January 2010-December 2012. In this study were included 1496 patients. Was used CAM (confusion assessment method), without psychiatric evaluation. Patients’ orientation levels are evaluated by assessing the orientation to place and time.

RESULTS: Table: Relation between the number of used medicaments and the incidence of delirium.

<table>
<thead>
<tr>
<th>Number of patients</th>
<th>Number of medicaments</th>
<th>Incidence of delirium</th>
</tr>
</thead>
<tbody>
<tr>
<td>273</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>347</td>
<td>1 to 3</td>
<td>20.1%</td>
</tr>
<tr>
<td>876</td>
<td>&gt;3</td>
<td>22.8%</td>
</tr>
</tbody>
</table>

In this table, we have the incidence of delirium, depending on the number of used medicaments. From the comparison that was done, the incidence of delirium was significant, when medicaments were not used, compared to when they were used, 1-3 or more than 3. P<0.05

CONCLUSIONS: From this study it was noticed that the number of medicaments that the elderly use is one of the most important risk factors in the incidence of post operator delirium. It was also noticed an important statistical difference between the group of patients who took 1-3 or more than 3 medicaments compared to those who took no medicaments. (p<0.05)

Eur Urol Suppl 2014; 13(7) e1601
**INTRODUCTION & OBJECTIVES:** The purpose of this review was to define the learning curve for laparoscopic upper urinary tract surgery.

**MATERIAL & METHODS:** All operations were performed by a urologists who were primarily trained in open urological surgery. Patient characteristics and perioperative outcomes were analyzed.

**RESULTS:** A total of 105 consecutive resections were evenly distributed among two surgeons (80 and 25). Median operating time was 120 minutes for Cases 1 to 20 in each surgeon's experience and declined to a steady state (83-92 minutes) for Cases 21 and higher. Subsequently, Cases 1 to 21 were considered "early experience," whereas Cases 21 and higher were combined as "late experience" for statistical analysis. There were no significant differences between patients undergoing laparoscopy in the early experience and those undergoing laparoscopy in the late experience with respect to age, weight, or proportion of patients with malignancy, obesity, or diagnosis. Trends toward declining rates of intraoperative complications (10 vs. 3.5%, P<0.0001) and conversion to open surgery (10 vs. 0%, P = 0.001) were observed with experience. Median operating time (120±24 vs. 83±26 minutes, P < 0.001) and overall length of postoperative hospital stay (4.2±1.1 vs. 2.1±1 days, P < 0.0001) declined significantly with experience. There was no difference in the rate of postoperative complications between early and late experience (10 vs. 0%, P = 0.001).

**CONCLUSIONS:** The learning curve for performing laparoscopic upper urinary tract surgery was approximately 20 procedures in this study. Learning was also extended to clinical care because it was appreciated that patients could be discharged to their homes more quickly.
S296: Shame and satisfaction of patients who undergo urological invasive procedure

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**INTRODUCTION & OBJECTIVES:** The purpose of this study is to evaluate the shame and satisfaction in patients who undergo an urological invasive procedure, diagnostic or therapeutic.

**MATERIAL & METHODS:** The study population was retrieved from the hospitalized patients in the 2nd urological department of Aristotle University of Thessaloniki and from the patient who visited the outpatient urological department. The questionnaire CSQ-8 (Client Satisfaction Scale, Cronbach Alpha 0.91) was used to evaluate patient satisfaction and OAS questionnaire (Other As Shamer scale, Cronbach’s 0.96 for patient population) was used to evaluate the shame. Additionally, a five-point likert scale was used to estimate how much shame the patient feels during the procedure.

**RESULTS:** 33 patients participated in this study, twenty five males and eight females, fifteen from outpatient department and eighteen were hospitalized. 48.5% of the participants noted that they didn’t feel shame at all, but the 12.2% of them felt very ashamed. There was no statistically significant difference between males and females, obese people and normal, and there was not any significant correlation between shame and age or years of education. The mean of patient satisfaction measured 32 (maximum 35).

**CONCLUSIONS:** In an attempt to improve the conditions of urological invasive procedure in public hospitals, all the healthcare professionals have to consider patients’ shame. This feeling is possible to delay health care seeking and consequently the diagnosis or treatment.

*Eur Urol Suppl 2014; 13(7) e1603*
S297: Relationship between bacterial colonization and urologic symptoms in patients using ureteral double j stent

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INTRODUCTION & OBJECTIVES: Double J stents (DJS) are widely used in urology. These are synthetic biomaterials with suitable surfaces for bacterial colonization and development of biofilm polysaccarides. The development of softer materials and dj stents has improved patient endurance; otherwise they are still correlate with considerable morbidity. In our study; we evaluated the risk factors and relationship between urologic symptoms and DJS bacterial colonization.

MATERIAL & METHODS: 135 patients (18-77 years old) were included in this prospective study between August 2012 - December 2013. Ureteral stenting (8 of them bilateral) were performed for various indications and therefore indwelling times varied for each patient. Then, patients with DJS were given twice a day, ciprofloxacin 500 mg orally for 5 days after operation. Patients were clinically followed and after the treatment we recorded patients bothersome symptoms. Urine analysis and urine cultures were taken during the stenting. The stents removed under aseptic conditions and the distal end were cut off and placed in a culture medium for evaluation.

RESULTS:

Bacteriura and bacterial stent colonization were found at 10 (7,4%) and 35 (%26) patients. Most bacterial DJS colonized by Candida spp. (40%). Mean indwelling times more different colonized (68,6 days) and non colonized (46,2 days) DJS. Similarly encrustation ratio were significant colonized (42,8%) and non colonized (27%) DJS. Age, sex, predisposing factors (DM, renal failure etc.) did not differ between two groups. Irritative voiding symptoms such as polyuria (57,1%/31%), nocturia (71,4%/57%) and urgency (54,2%/33%) rates were significant higher in bacterial colonized group.

<table>
<thead>
<tr>
<th>Surgery</th>
<th>Number of Patients (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ureteroscopic stone treatment</td>
<td>69 (51,2%)</td>
</tr>
<tr>
<td>Kidney stone treatment</td>
<td>28 (20,8%)</td>
</tr>
<tr>
<td>Hydronephrosis</td>
<td>26 (19,2%)</td>
</tr>
<tr>
<td>Ureteral Stricture</td>
<td>12 (8,8%)</td>
</tr>
<tr>
<td>Total</td>
<td>135 (100%)</td>
</tr>
</tbody>
</table>

TABLE 1: Reason for Double J stent insertion.
Table 2: Data about DJS culture positive patients and ciprofloxacin susceptibility (n=35)

<table>
<thead>
<tr>
<th>Patient No</th>
<th>Sex</th>
<th>Age</th>
<th>Urine culture</th>
<th>DJS culture after treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Male</td>
<td>26</td>
<td>Pseudomonas aeruginosa</td>
<td>No colonization</td>
</tr>
<tr>
<td>2</td>
<td>Male</td>
<td>36</td>
<td>Pseudomonas aeruginosa</td>
<td>Pseudomonas aeruginosa</td>
</tr>
<tr>
<td>3</td>
<td>Female</td>
<td>18</td>
<td>Pseudomonas aeruginosa</td>
<td>No colonization</td>
</tr>
<tr>
<td>4</td>
<td>Male</td>
<td>44</td>
<td>Pseudomonas aeruginosa</td>
<td>Candida spp.</td>
</tr>
<tr>
<td>5</td>
<td>Male</td>
<td>35</td>
<td>Candida spp.</td>
<td>Candida spp.</td>
</tr>
<tr>
<td>6</td>
<td>Female</td>
<td>39</td>
<td>Candida spp.</td>
<td>No colonization</td>
</tr>
<tr>
<td>7</td>
<td>Female</td>
<td>75</td>
<td>Candida albicans</td>
<td>Candida albicans</td>
</tr>
<tr>
<td>8</td>
<td>Male</td>
<td>32</td>
<td>E. Coli ESBL+</td>
<td>Candida spp.</td>
</tr>
<tr>
<td>9</td>
<td>Female</td>
<td>58</td>
<td>E. Coli ESBL+</td>
<td>No colonization</td>
</tr>
<tr>
<td>10</td>
<td>Female</td>
<td>26</td>
<td>Klebsiella pneumoniae</td>
<td>Klebsiella pneumoniae</td>
</tr>
</tbody>
</table>

Table 3: Data about urine culture positive patients and DJS culture after treatment (n=10)

<table>
<thead>
<tr>
<th>Description</th>
<th>All patients (%100)</th>
<th>DJS culture negative patients , (%74)</th>
<th>DJS culture positive patients, (%26)</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Patients</td>
<td>135</td>
<td>100</td>
<td>35</td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>43,7±17,9</td>
<td>42,86±17,7</td>
<td>46,12±18,5</td>
<td>0,36</td>
</tr>
<tr>
<td>Sex</td>
<td>Male</td>
<td>83 (61,4 %)</td>
<td>66 (66 %)</td>
<td>17 (48,5%)</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>52 (38,6%)</td>
<td>34 (34%)</td>
<td>18 (51,5%)</td>
</tr>
<tr>
<td>Side lateral</td>
<td>Right</td>
<td>49 (36,2%)</td>
<td>36 (36%)</td>
<td>13 (37,1%)</td>
</tr>
<tr>
<td></td>
<td>Left</td>
<td>78 (57,7%)</td>
<td>58 (58%)</td>
<td>20 (57,1%)</td>
</tr>
<tr>
<td></td>
<td>Bi</td>
<td>8 (6,1%)</td>
<td>6 (6%)</td>
<td>2 (5,8%)</td>
</tr>
<tr>
<td>Predisposing factor (DM,etc.)</td>
<td>20 (14,8%)</td>
<td>15 (15%)</td>
<td>5 (14,2%)</td>
<td>0,92</td>
</tr>
<tr>
<td>DJS encrustation</td>
<td>42 (31,1%)</td>
<td>27 (27%)</td>
<td>15 (42,8%)</td>
<td>0,015</td>
</tr>
<tr>
<td>DJS Indwelling time</td>
<td>52 days</td>
<td>46,2 days</td>
<td>68,6 days</td>
<td>0,001</td>
</tr>
</tbody>
</table>
**CONCLUSIONS:** The rates of some symptoms with bacterial colonized DJS patients are significantly increased. Especially irritative voiding symptoms including poliuria and nokturia. DJS Indwelling time and encrustation are effect to stent bacterial colonization. These categories of patients should undergo shorter stent retention, antimicrobial prophylaxis include fungicides and follow-up to infections with laboratory assessments.

Eur Urol Suppl 2014; 13(7) e1604
S298: Primary malignant melanoma of female urethra: Case report

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INTRODUCTION & OBJECTIVES: Primary malignant melanoma of the urethra in females is extremely rare and represents only 0.2% of all malignant melanomas. These neoplasms are frequently misdiagnosed clinically, which leads to a delayed diagnosis and patients usually showed poor prognosis. We report here on a rare case of primary malignant melanoma of the female urethra.

MATERIAL & METHODS: A 71-years-old woman presented to our department with a several months history of intermittent blood spots and a painful small mass at the external urethral meatus. The physical examination revealed a soft, small protruded mass tan colored. She had also no any other diseases from her history and she was scheduled for surgical excision.

RESULTS: The pathological diagnosis was malignant melanoma of urethra. Abdominal computed tomography detected no lymphatic nodal swelling or distant metastases. The whole-body bone scan also revealed no evidence of metastasis and there was no evidence of any other primary tumor. The patient refused any invasive surgical approach. One month after the diagnosis liver metastases presented and six month later MRI showed additional metastases in liver, lungs and spleen.

CONCLUSIONS: Primary malignant melanoma rarely is located at urethra. However symptoms are very common with other benign conditions and prognosis is very poor. In conclusion, urologist have to consider melanoma in differential diagnosis of urethral masses.

Eur Urol Suppl 2014; 13(7) e1605
S299: Laparoscopic treatment of the retroperitoneal cysts

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INTRODUCTION & OBJECTIVES: Retroperitoneal cysts are uncommon, with an estimated incidence of 1/5750 to 1/250,000. Usually, retroperitoneal cysts are asymptomatic and were found incidentally. Only those cysts that lie in the retroperitoneum without connection with any adjacent anatomical structure, except by surrounding tissue, are included in this group of cysts and represents a diagnostic and etiological puzzle. It is advisable to perform MSCT, which may excluded belonging to other retroperitoneal organs and helps in deciding the operating approach.

MATERIAL & METHODS: The last two years we've had occurrence of solitary retroperitoneal cyst in two women. In both patients the cysts were located in the right retroperitoneal space, under the right kidney which are clearly separated. We performed laparoscopic TAPP approach whereby cysts are separate from the environment, entered into abdominal area punctured and evacuated. Consuetudinary left lateral position was performed. We use 10 mm optical port and two working ports of 5 mm. Histology of the cyst wall is mandatory: cyst wall makes the connective tissue that is lined with one-row mucinous epithelium without atypia. The wall of the cysts present dystrophy calcification. Cytological findings: protein material. Based on this, we can conclude that it was a mucinous cystadenoma.

RESULTS: There was no complication. The patients were discharge the next day. Control examination on ultrasonography after 6 and 12 months did not show abnormal findings.

CONCLUSIONS: Transabdominal laparoscopic approach in resolving retroperitoneal cyst is a safe, highly effective, with a broad overview of the operative field and the limits of the cyst and its contact with the environment. The transabdominal laparoscopic approach is the method of choice providing excellent overview, allowing anatomical evaluation and judgement of resectability, whereas retroperitoneoscopical surgery is limited to small lesions clearly located within the retroperitoneum.

Eur Urol Suppl 2014; 13(7) e1606
INTRODUCTION & OBJECTIVES: Liposarcomas are, represent with around 19% of all cases, one of the most common entity for soft tissue sarcomas. But however they have a share of only around 1% of all malignancies. The lower extremities are hereby most commonly affected. In the therapy come in addition to the surgical approach, the radiation and various chemotherapy protocols in use. The treatment may represent a challenge due to the tendency for recurrence, which depends on the degree of differentiation.

MATERIAL & METHODS: For a now 80 year old patient, an ablation of the testis was carried out in 1995 because of a liposarcoma of the spermatic cord. Postoperatively, a local radiotherapy with 50 Gy was added. In 2008, there was an inguinal / perineal local recurrence, which we resected. Histologically, as a result of the irradiation, an undifferentiated sarcoma was founded.

RESULTS: In September 2012 after several recurrences and repeated surgical therapies, we decided to perform an en-bloc resection beginning from inguinal until perineal with a resection of a large part of the adductors approaches, the left corpus cavernosum, the lateral urethral wall and installation of a vacuum dressing. In the course of dressing changes we repeatedly performed re-resections in the frame. These resections showed repeatedly sarcoma residuals. The consecutive urethral stricture was treated transurethral.

CONCLUSIONS: Our case study confirms both the high recurrence rate in poorly differentiated liposarcomas as well as the dependence of the rate of recurrence and the outcome of the primary surgical intervention. Complete resection is a prerequisite for a curative chance and should always be sought out.

Eur Urol Suppl 2014; 13(7) e1607
S301: Characteristics of patients who had bleeding after transurethral resection and the risk factors for multiple interventions

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INTRODUCTION & OBJECTIVES: The aim of this study was to evaluate patients' characteristics requiring reintervention (bleeding control and clot evacuation) due to hemorrhage after transurethral resection due to bladder cancer (TUR-BC) or benign prostatic hyperplasia (TUR-P) and reveal the factors that may cause bleeding.

MATERIAL & METHODS: 431 patients underwent TUR-P or TUR-BC in our clinic between July 2011 and July 2014 were enrolled in this study. 15 patients required intervention due to bleeding after TUR. Patients' age, drugs used and medical history (diabetes, hypertension, ischemic heart disease, neurological disease, comorbidities, coroner stent implantation), type of surgery, hemorrhage time, preoperative INR levels were revealed from the patient files and recorded. We evaluated the risk factors that might be effective on bleeding. Linear regression analysis and Mann-Whitney U tests were used for statistical evaluation.

RESULTS: In 6 patients TUR-BC, in 8 patients TUR-P and in 1 patient KTP laser prostatectomy were performed. Mean age 71.13(54-85) years. The number of the patients who had hypertension, coronary stent implantation, cardiovascular disease, neurological disease, diabetes, serious comorbidities (like chronic kidney disease; arrhythmia, bronchial asthma), were 9, 2, 6, 3, 5 and 7 respectively. The number of patients who needed reintervention in first 3 days, 4-7 days and after 7 days postoperatively were 11, 1 and 3 respectively. Three patients needed second intervention. Preoperative mean and median INR values were detected high in 3 patients whose were using anticoagulant drugs. TUR was performed in 3 cases by young surgeon, in 8 cases by medium expert surgeon and in 4 cases highly expert surgeon. Antihypertensive, antithrombotic, anticoagulant and antidiabetic drugs were used by 6, 3, 36 and 5 patients respectively. Presence of diabetes was only significant factor in patient whose had second intervention (linear regression analyze, p=0.022) Age, hypertension, coroner stent, cardiovascular disease, CVA history, additional disease like chronic kidney disease and experience of surgeon, preoperative INR value, time passed until intervention and type of surgery were not significant factors (p>0.05). Bleeding control was more difficult in patients used anticoagulant (p=0.015) and antidiabetic (p=0.002) drugs and they needed second intervention.

Average age, preoperative INR values, and time to intervention values for patients who needed intervention once or twice for bleeding control was shown on table.

<table>
<thead>
<tr>
<th></th>
<th>Age*</th>
<th>INR*</th>
<th>Intervention time*</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bleeding control with intervention once</td>
<td>73.41±9.30 (76)</td>
<td>1.27±0.54 (1.04)</td>
<td>7.08±10.19 (3)</td>
<td>12</td>
</tr>
<tr>
<td>Bleeding control with intervention twice</td>
<td>62.00±6.92 (66)</td>
<td>1.34±0.52 (1.13)</td>
<td>5.00±6.08 (2)</td>
<td>3</td>
</tr>
<tr>
<td>All patients</td>
<td>71.13±9.86</td>
<td>1.28±0.52</td>
<td>6.66±9.36</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>(69)</td>
<td>(1.04)</td>
<td>(3)</td>
<td></td>
</tr>
<tr>
<td>-----</td>
<td>------</td>
<td>--------</td>
<td>------</td>
<td></td>
</tr>
<tr>
<td>p</td>
<td>0.147</td>
<td>0.717</td>
<td>0.825</td>
<td></td>
</tr>
</tbody>
</table>

* Values are given as mean ± standard deviation (median).

**CONCLUSIONS:** Anticoagulant drugs were detected more risky than antithrombotic drugs in terms of postoperative bleeding in patients underwent TUR. Presence of diabetes mellitus and using antidiabetic drugs can be consider as risk factors causing difficulty during bleeding control. Further large randomized control studies are needed to validate these findings.

Eur Urol Suppl 2014; 13(7) e1608
S303: Colonic dilatation mimics hydronephrotic kidney: Case report

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INTRODUCTION & OBJECTIVES: Inside the human body, usually every abdominal organ has own characteristic shape and place. However, peristaltic movement of the gastrointestinal tract changes its shapes and places more than the other abdominal organs. In our case, dilatation and calcification on the wall of the descending colon make it looks like hydronephrotic atrophic kidney with renal stone.

MATERIAL & METHODS: 56 years old women admitted to the urology outpatient clinic with mild and vague abdominal pain.

RESULTS: On physical examination abdomen is soft and non-tender, no rebound and defense. Abdominal ultrasound revealed that bilateral kidney were normal appareance and without hydronephrosis, bladder and other abdominal organs also were healthy. Biochemical evaluation of patient was normal however urine analysis showed that microhematuria. To study the reason of microhematuria, Computerized Tomography (CT) was performed. At the seeking of coronal section of the abdominal CT, left kidney seemed anteriorly located and had a stone on the ureteropelvic junction and the kidney ballooned and dilated with thinned renal parenchyma. However real renal tissue was seen on posterior coronal section, due to the calcific wall of dilated colon mimicing the kidney.

CONCLUSIONS: Every radiologic imagings must be completely evaluated to decide the exact diagnosis. Sometimes pathologic or physiologic changes can cause wrong definition or diagnosis.

Eur Urol Suppl 2014; 13(7) e1609
S304: Effect of previous shockwave lithotripsy on the success of retrograde intrarenal surgery

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INTRODUCTION & OBJECTIVES: Purpose: We evaluated the effects of previous shockwave lithotripsy (SWL) treatment on the performance and outcomes of retrograde intrarenal surgery (RIRS).

MATERIAL & METHODS: Patient and Methods: A total of 1052 patients underwent RIRS between 2008 and 2014 in 4 large referral hospitals, of whom 54 % had a recent history of unsuccessful SWL. They had been treated with a mean of 3.1 previous SWL. All patients were evaluated with intravenous urography and/or computed tomography before the procedure. Patients demographics, stone characteristics, operative findings, success rate, need for auxiliary treatments and complications were documented and compared between groups. Success was defined as stone-free status or residual fragments less than 3 mm.

RESULTS: Results: There were no differences between the groups in age, sex, stone size and stone number. The overall success rate after primary RIRS was 75 %. A multivariate logistic regression analysis showed that only stone size and stone number had significant influence on the stone-free rates after RIRS. Mean operative time (49.6 vs 50.6 hours), success rates (74.64% vs 74.42%), complication rates (5.4% vs 7%) and hospitalization times (1.5 vs 1.3 days) were similar in two groups (p>0.05 for each parameter, Table 1). The most common complications were ureteral wall injury, bleeding and postoperative fever. Bleeding was mostly clinically insignificant and no patient required blood transfusion in either group. However, in 12 cases (1.1%) severely bleeding were occurred, which resulted poor visibility and procedure was aborted.

CONCLUSIONS: Conclusion: The success and morbidity of RIRS are similar in patients who had recent previous SWL and those having no SWL. Previous SWL does not affect the outcomes of RIRS.

Table 1. Comparison of pre-operative and operative data

<table>
<thead>
<tr>
<th></th>
<th>Previous SWL</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean age (years)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>43.2</td>
<td>45.4</td>
</tr>
<tr>
<td>Yes</td>
<td>268/216</td>
<td>336/231</td>
</tr>
<tr>
<td>Gender (Male/Female)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>16.4</td>
<td>15.6</td>
</tr>
<tr>
<td>Yes</td>
<td>268/216</td>
<td>336/231</td>
</tr>
<tr>
<td>Stone size (mm)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>49.6</td>
<td>50.6</td>
</tr>
<tr>
<td>Yes</td>
<td>74.64%</td>
<td>74.42%</td>
</tr>
<tr>
<td>Mean operative time ± sd (min)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>1.54</td>
<td>1.37</td>
</tr>
<tr>
<td>Yes</td>
<td>49.6</td>
<td>50.6</td>
</tr>
<tr>
<td>Stone-free rate (%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>5.4%</td>
<td>7%</td>
</tr>
<tr>
<td>Yes</td>
<td>1 (0.1%)*</td>
<td>-</td>
</tr>
<tr>
<td>Mean hospitalization time (range [days])</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>1.54</td>
<td>1.37</td>
</tr>
<tr>
<td>Yes</td>
<td>49.6</td>
<td>50.6</td>
</tr>
<tr>
<td>Intra- and post-operative complications</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>5.4%</td>
<td>7%</td>
</tr>
<tr>
<td>Yes</td>
<td>1 (0.1%)*</td>
<td>-</td>
</tr>
</tbody>
</table>

* A 48 year old man died from septic shock 5 days after the surgery.

** p>0.05 for each parameter

Eur Urol Suppl 2014; 13(7) e1610
S305: Compare of the laparoscopic and ureteroscopic management of large proximal and mid ureter stones


Uludag University, Dept. of Urology, Bursa, Turkey

INTRODUCTION & OBJECTIVES: To compare the complications and effectiveness of ureteroscopic laser lithotripsy with laparoscopic ureter laparoscopic ureterolithotomy in mid or proximal portion of ureteral stones over 15mm when the FURS was available.

MATERIAL & METHODS: We reviewed medical records of patients who have a radiopaque stone larger than 15mm in diameter and underwent laparoscopic ureterolithotomy (group 1) or ureteroscopic laser lithotripsy (group 2) were included in the study between April 2004 and June 2014 in a single center. Exclusion criteria were ureteral stricture due to malignant disease, non-functional renal unit, distal ureteral calculi, previous ipsilateral ureter operation history, lost of follow up. The success after first attempt' defined as primary procedure was not failed and had residual fragments smaller than 2 mm on the first postoperative day.

RESULTS: Sixty-three patients met inclusion criteria. Group 1 consisted of 31 patients and group 2 consisted of 32 patients. There were no differences between groups according to age, gender, body mass index (BMI) and stone side (table 1). Although Laparoscopic ureterolithotomy had higher stone free rate after primary procedure (p=0.003), there was no difference in stone-free rates between LU and URS at the end of the follow up (table 2). Hospitalization and operation times were lower in laparoscopic group compared to URS group (table 2).

<table>
<thead>
<tr>
<th></th>
<th>URS (n=31)</th>
<th>LU (n=32)</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operation time (minute)</td>
<td>65 (30-150)</td>
<td>150 (45-330)</td>
<td>&lt;0.001***</td>
</tr>
<tr>
<td>Hospitalization time (day)</td>
<td>2 (1-30)</td>
<td>4 (2-28)</td>
<td>&lt;0.001***</td>
</tr>
<tr>
<td>Number of procedures</td>
<td>1.42±0.96 (1-5)</td>
<td>1.03±0.18 (1-2)</td>
<td>0.02*</td>
</tr>
<tr>
<td>Success rate after first attempt</td>
<td>71.0%</td>
<td>96.9%</td>
<td>0.006**</td>
</tr>
<tr>
<td>Stone free rate 3 months after last procedure</td>
<td>93.5%</td>
<td>100%</td>
<td>0.238</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Group 1 (n=31)</th>
<th>Group 2 (n=32)</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age (year)</td>
<td>46.8±16.1</td>
<td>46.2±13.9</td>
<td>0.887</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td>0.793</td>
</tr>
<tr>
<td>Female</td>
<td>11 (35.5%)</td>
<td>10 (31.3%)</td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>20 (64.5%)</td>
<td>22 (68.8%)</td>
<td></td>
</tr>
<tr>
<td>BMI</td>
<td>27.3 (16.5-36.9)</td>
<td>26.2 (21.1-47.5)</td>
<td>0.374</td>
</tr>
<tr>
<td>Stone diameter</td>
<td>15 (15-25)</td>
<td>20 (15-30)</td>
<td>0.008</td>
</tr>
<tr>
<td>Stone localization</td>
<td></td>
<td></td>
<td>0.036*</td>
</tr>
<tr>
<td>Upper ureter</td>
<td>16 (51.6%)</td>
<td>25 (78.1%)</td>
<td></td>
</tr>
<tr>
<td>Mid ureter</td>
<td>15 (48.4%)</td>
<td>7 (21.9%)</td>
<td></td>
</tr>
<tr>
<td>Stone side</td>
<td></td>
<td></td>
<td>0.609</td>
</tr>
<tr>
<td>Right</td>
<td>13 (41.9%)</td>
<td>11 (34.4%)</td>
<td></td>
</tr>
<tr>
<td>Left</td>
<td>18 (58.1%)</td>
<td>21 (65.5%)</td>
<td></td>
</tr>
</tbody>
</table>
CONCLUSIONS: Laparoscopy was effective option of large proximal and mid ureter stones treatment with high success and low morbidity rates, however URS should be first option therapy for this patients group with high end of the procedure stone free rate and shorter operation and hospitalization time. FURS should be available in operation room where URS or LU procedures were performed for increasing the success rate.

Eur Urol Suppl 2014; 13(7) e1611
S306: Our trends in surgical management of kidney stones: A single center experience

Kılıcarslan H., Kordan Y., Coskun B., Kaygısız O., Celen S., Gunseren K.O.

Uludag University, Dept. of Urology, Bursa, Turkey

INTRODUCTION & OBJECTIVES: Evolution of percutaneous nephrolithotomy (PCNL) and more recently retrograde intra renal surgery (RIRS) with flexible ureteroscopy (FURS) has dramatically changed surgical management of the kidney stones. In this study we aimed to review our trends in last 5 years for surgical treatment of kidney stones.

MATERIAL & METHODS: This is a retrospective analysis of consecutive patients who underwent PCNL or RIRS in a single tertiary referral center between 2009 and 2014. The data was extracted from prospective database of PCNL and RIRS. Recorded data include the number of procedure in each year, patient demographics, perioperative parameters

RESULTS: Stone characteristics for PCNL and RIRS in each year is presented in table.

<table>
<thead>
<tr>
<th>Years</th>
<th>Number of patients (n)</th>
<th>Mean Stone Burden (mm²)</th>
<th>Stone Localizations</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>PCNL</td>
<td>RIRS</td>
<td>PCNL</td>
</tr>
<tr>
<td>2009</td>
<td>105</td>
<td>4</td>
<td>473</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>19 lower pol 86 others</td>
</tr>
<tr>
<td>2010</td>
<td>79</td>
<td>32</td>
<td>508</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>13 lower pol 66 others</td>
</tr>
<tr>
<td>2011</td>
<td>42</td>
<td>62</td>
<td>503</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>13 lower pol 29 others</td>
</tr>
<tr>
<td>2012</td>
<td>64</td>
<td>52</td>
<td>351</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>20 lower pol 44 others</td>
</tr>
<tr>
<td>2013</td>
<td>25</td>
<td>77</td>
<td>472</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>6 lower pol 19 others</td>
</tr>
<tr>
<td>2014 (in six mounts)</td>
<td>14</td>
<td>90</td>
<td>341</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>4 lower pol 10 others</td>
</tr>
</tbody>
</table>

CONCLUSIONS: RIRS became the leading surgical treatment for renal stone in our practice. While mean stone burden for RIRS is slightly increased overtime, it was instable for PCNL.

Eur Urol Suppl 2014; 13(7) e1612
S307: Eswl assisted treatment to remove retained (forgotten) encrusted pigtail ureteral stents: Results of 10 cases


Samsun Education and Research Hospital, Dept. of Urology, Samsun, Turkey

INTRODUCTION & OBJECTIVES: Double pigtail (JJ) ureteral stents are the most common procedure of the diversion performed in ureteral obstructions. Due to frequent use and either clinician or patient factor, some ureteral stents may be forgotten in situ and lead to encrustation as a result of retaining for long term. The longer the duration of retained stent, the higher probability the encrustation ensued. This may be complicated by failure of removal.

We retrospectively reviewed 10 patients with forgotten or neglected long term indwelling JJ stents. This study comprised patients whom with failure of removal or breakage of stent during cystoscopy. We aimed to present our results with ESWL treatment in such patients.

MATERIAL & METHODS: We reviewed retrospectively 10 patients admitted to our clinic for the removal of JJ stents that were forgotten or neglected between 2007-2014. This study comprised patients with failure of removal or breakage of stents during cystoscopy. Due to being lesser invasive, patients underwent ESWL treatment first. Data about ESWL treatment and patients' characteristics were presented.

Table 1: Demographical data

<table>
<thead>
<tr>
<th>Mean shock wave</th>
<th>2708 (2500-3000)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean energy applied</td>
<td>19 kV</td>
</tr>
<tr>
<td>ESWL sessions</td>
<td>1 session: 7 people</td>
</tr>
<tr>
<td>Age</td>
<td>50.3 (31-62)</td>
</tr>
<tr>
<td>Sex</td>
<td>Female: 2</td>
</tr>
<tr>
<td>Side</td>
<td>Right: 6</td>
</tr>
<tr>
<td>Catheter indication</td>
<td>Prior ESWL : 3</td>
</tr>
</tbody>
</table>

RESULTS: Patients' records indicated that, 5 patients were detected incidentally. Other 5 patients were known to admit for removal being aware of their JJ stents. All of ureteral stents were placed prior to ESWL treatment of renal stones or following ureteroscopic procedures performed for ureteral stones. Data about patients' characteristics and ESWL results were given in Table 1. In 6 patients, ESWL was performed to nearby region of kidney stone and to whole JJ stent entirely. These stents were removed easily in its entirety cystoscopically (Figs 1-2). In one patient, JJ stent broke up at its lower end and then removed cystoscopically (Fig 3). In same patient, JJ stent was renewed and removed 3 weeks later because of ureteral oedema (Fig 4). In two patients, stents could be managed to remove merely after the second session of ESWL. The last patient had the JJ stents removed 2 years ago, however, a little part of it had gone unnoticed in the kidney (Fig 5). This patient underwent 3 sessions of ESWL and then, stent fragmented and passed (Fig 6). All of patients were documented to clear the stents or encrustations off after ESWL treatment.
Figures 1-2:

Fig. 1: Unremovable pigtail catheter prior to ESWL

Fig. 2: Pigtail catheter following ESWL: minor changes in configuration

Figures 3-4:

Fig. 3: Pigtail catheter that broke at two levels up during endoscopic removal

Fig. 4: The new pigtail catheter after removal of older one that removed by ureteroscopic means following ESWL
**Figures 5,6:**

*Fig. 5: Retained part of pigtail catheter that left 6 years in situ Fig. 6: The same patient after 3 sessions of ESWL*

**CONCLUSIONS:** Ureteral JJ stents will keep their value in future as therapeutical aid. Possible complications arising from retaining or neglecting the indwelling catheter that are somewhat a foreign body for patient can be managed in part by informed consent about the possible problems patients would encounter if a stent left for long term and that, the treatment accepted as "not completed" until the removal of stent. Despite all efforts, retained and encrusted stents can be encountered in daily practice. For those cases, ESWL seemed to be the 1st choice of treatment. If fails, ureterorenoscopic or percutaneous renal procedures may prevail. Open surgery is the last resort.

Eur Urol Suppl 2014; 13(7) e1613
S308: Lower ureteric stones and ureterorenoscopy

Spahović H., Efendić A., Željo S., Efendić E.

General Hospital Sarajevo, Dept. of Urology, Sarajevo, Bosnia and Herzegovina

INTRODUCTION & OBJECTIVES: To determine the efficacy and complication rate of rigid ureteroscopy (URS) in the treatment of lower ureteric calculi.

MATERIAL & METHODS: The URS treated patients history were analysed retrospectively. Treatment with URS included 89 patients (58 men and 31 women, mean age 52 years, size range 3-11mm). All patients were treated with a 9,5F rigid ureterorenoscope. Stones were fragmented with an ultrasonic lithotriptor and removal of the stone or stone fragments was mainly by forceps, also Dormia basket was used. All ureteroscopies were performed with the patient under general (n=71) or spinal (n=18) anaesthesia in a mean treatment duration of 32.5 min. The outcome was assessed by stone-free rates, re-treatment rates, time to become stone-free and complications.

RESULTS: URS for lower ureteric calculi resulted in a success rate of 96%. Patients treated with URS were stone-free within 2 days, whereas UK sonda were in average 1-2 days. Removal of the stone or stone fragments was mainly by forceps (82.6%) and Dormia basket was used in 16.4% of the cases. The complications occurred during or immediately after the procedure and were minor (10.7%), ureteral perforation with stent implantation (4.49%), impaction of the instrument in the ureter with consequent ureteral erosion and laceration (6.2%), extravasation and bleeding in the urogenital tract <1%.

CONCLUSIONS: URS provides a simple, fast and safe option for the management of lower ureteric calculi with small incidence of complication.

Eur Urol Suppl 2014; 13(7) e1614
S309: Management of urethral trauma with vascular leakage

Cakici O.U., Cakmak S., Asil E., Altinova S.

Ankara Ataturk Training and Research Hospital, Dept. of Urology, Ankara, Turkey

INTRODUCTION & OBJECTIVES: Male urethra could be injured as a consequence of lower urogenital trauma. The most common injury site is bulbous urethra. We report the results of three urethral trauma patients with vascular leakage.

MATERIAL & METHODS: Two patients had perineal trauma and one patient had traumatic catheterization history. All patients had urethrorrhagia. Retrograde urethrography obtained for each patient. Patients are managed with percutaneous suprapubic catheterization initially. In one patient cavernous injury is also showed by intravenous contrast enhanced CT and pelvic MRI after transurethral injection of contrast material revealed significant vascular leakage. IIEF-5 questionnaires are taken from two patients.

RESULTS: Patient 1(54 years old, male) is reevaluated after one month. Urethral integrity was complete in retrograde urethrography. Voiding trial was successful. The patient refused to perform uroflowmetry. His initial and follow-up IIEF-5 scores were 19 and 17, respectively. Patient 2(76 years old, male) could not accomplish the voiding trial and underwent cystourethroscopy. Urethral stricture is treated with optical urethrotomy. His initial and follow-up IIEF scores were 7 and 7, respectively. Patient 3(51 years old, male) was lost to follow-up.

CONCLUSIONS: Urethral traumas with vascular leakage could be managed safely by percutaneous catheterization and conservative follow-up.

Eur Urol Suppl 2014; 13(7) e1615
S311: Paraffinoma of male genitalia – operative treatment and results

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Medical University Hospital, Dept. of Urology, Pleven, Bulgaria

INTRODUCTION & OBJECTIVES: Paraffinoma of male genitalia (PMG) is a chronic granulomatous reaction to a "foreign body" developed after injection of exogenous substances (ES).

Our aim was to investigate socio-demographic characteristics of patients with PMG in order to recommend and apply appropriate surgical techniques to achieve the best anatomical and functional results.

MATERIAL & METHODS: Fifty-five patients were operated with PMG, engaging the shaft of the penis, scrotum and pubic area between August 2008 and October 2012. Meshed split-thickness skin grafts (mSTSG), Modified Cecil's (MC), Bilateral scrotal flaps (BSF) and Simple excision (SE) were used. The patients were followed up between 6th and 19th month so that the aesthetic and functional recovery could be assessed. Evaluation of the penis sensitivity was performed and IIEF-5 was identified.

RESULTS: 85.44% of the participants were between the age of 15 and 39 years old. The mean age was 30 years old. The mean age during infiltration was 26 years old. Twenty-nine percent of participants identified themselves as Romas, 69% Bulgarians and only one patient - 2% of Turkish ethnicity. Among them 60% were single and 38% were married. Sixty percent had secondary education, 5% were university graduates, 24% had primary education, while the remaining 11% at the time of surgery were schoolboys. The ratio of unemployed was 58% while 11% of the participants were schoolboys. Three patients were former and one was current prisoner at the time of the plastic surgery. Liquid paraffin was used by 94%, Pine vaseline - 4% - and only 1-2% plain white vaseline. ES amount varies from 3 to 100 cc - average 21.2 cc (mSTSG – 33.4, MC – 23, BSF – 20.8, SE – 10.1). Fifty-six percent of participants had injected themselves alone, 40% were infiltrated by a friend, and only 4% by the sexual partner. The postoperative complications were SE – 41%, BSF – 40%, MC – 21% and mSTSG – 7%. The mean IIEF-5 were SE - 22.5, BSF – 23.6, MC - 22.9, mSTSG - 23.7. 13 % of all had erectile dysfunction: SE – 11.8%, MC – 21.4%, BSF – 10%, mSTSG – 7%. Corpus penis had best postoperative sensitivity of touch, vibration and temperature stimuli after SE followed by mSTSG BSF and MC.

CONCLUSIONS: Patients with PMG were seven times more among Romas -versus Bulgarians. The quantity of the most commonly used sterile liquid paraffin determined the operational method. BSF in comparison with the MC had an advantage in terms of shorter hospital stay and a shorter operative time. Postoperative complications were observed in 27%. The use of mSTSG provided excellent aesthetic and functional results in patients with genital paraffinoma and the least complications. After SE, incidence of complications and recurrence was the greatest. The patients had normal postoperative erectile function, which got worse in relapse development. The penis shaft skin had best sensitivity after SE and mSTSG.

Eur Urol Suppl 2014; 13(7) e1616
S312: The role of hyperbaric oxygen therapy in adult hypospadias surgery with buccal mucosal tube urethroplasty

Ateş F.¹, Malkoc E.¹, Aktaş Z.¹, Okcelik S.¹, Dursun F.¹, Memis A.², Mutluoğlu M.², Soydan H.¹, Basal S.¹, Karademir K.¹

¹Gata Haydarpasa Teaching Hospital, Dept. of Urology, Istanbul, Turkey, ²Gata Haydarpasa Teaching Hospital, Dept. of Undersea and Hyperbaric Medicine, Istanbul, Turkey

INTRODUCTION & OBJECTIVES: The aim of this study was to evaluate the role of hyperbaric oxygen therapy with buccal mucosal tube urethroplasty in patients with hypospadias.

MATERIAL & METHODS: Sixteen cases with proximal and midpenile hypospadias were included in the study. Patients with short urethra and penile curvature were treated in two stages. In first stage, orthoplasty was applied and in second stage, buccal mucosal tube urethroplasty was performed. Buccal mucosa was taken and prepared for tube urethroplasty around 16 Fr nelaton catheter and urethral tube was introduced between urethral meatus and glans penis. Buccal mucosal graft and lower limb mucosal graft were used in 7 and 9 patients respectively. Subcutaneous tissue and skin were closed over the tube. Penis was wrapped with coban and immobilized for 10 days and within the first day of the surgery hyperbaric oxygen therapy was applied for 10 sessions during weekdays on 13 patients.

RESULTS: Buccal mucosal tube urethroplasty was applied for 16 patients. Mean age was 21 years and mean graft length was 5.93 cm (1.5-13). At first stage, complete healing was achieved on 7 patients without any complication. But fistula development, slough, urethral stenosis and fistula with urethral stenosis was occurred in 5, 2, 1 and 1 patients respectively. After second manipulations such as urethrotomy intern and/or fistula repair, complete healing was achieved in 4 patients but 5 patients required additional surgical procedures. Patients characteristics and results were summarized on table according to group with or without HBO treatment.

<table>
<thead>
<tr>
<th>n</th>
<th>Age</th>
<th>Primer / redo</th>
<th>Orthoplasty</th>
<th>Graft source buccal / lower limb ± buccal</th>
<th>Graft length</th>
<th>First stage success</th>
<th>Success after second surgery</th>
</tr>
</thead>
<tbody>
<tr>
<td>HBO+</td>
<td>13</td>
<td>21.15</td>
<td>5 / 8</td>
<td>6 / 7</td>
<td>5.4 cm</td>
<td>53.8 % (7/13)</td>
<td>84.6% (11/13)</td>
</tr>
<tr>
<td>HBO-</td>
<td>3</td>
<td>20.67</td>
<td>1 / 2</td>
<td>1 / 2</td>
<td>8 cm</td>
<td>0 %</td>
<td>33% (1/3)</td>
</tr>
<tr>
<td>Total</td>
<td>16</td>
<td>21.06</td>
<td>6 / 10</td>
<td>7 / 9</td>
<td>5.9 cm</td>
<td>43.8 % (7/16)</td>
<td>75% (12/16)</td>
</tr>
</tbody>
</table>

CONCLUSIONS: Hypospadias surgery has low promising results due to fistula and scary healing of penile tissue. So many surgical methods described to increase success rates of hypospadias surgery. Hyperbaric oxygen therapy is an important treatment modality in wound healing, especially tissues with insufficient vascular support. Hyperbaric oxygen therapy can be considered as a supportive treatment modality for patients applied buccal mucosal tube urethroplasty.

Eur Urol Suppl 2014; 13(7) e1617
Is combination of penoscrotal Z-plasty and suprapubic lipectomy effective techniques for lengthening of the penis?

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¹University of Kocaeli, Dept. of Urology, Kocaeli, Turkey, ²İzmit Konak Hospital, Dept. of Urology, Kocaeli, Turkey

INTRODUCTION & OBJECTIVES: A man’s perception of his genitalia has a significant effect on self-esteem and sexual identity. Several methods for increasing penis size have been described in the literature, such as pubopelvic liposuction, lipectomy, suspensory ligament dissection, Z-plasty, V-Y plasty and injections. Combining some of the techniques provides an easy and effective way to improve the length of the penis. In this study, we aimed to assess the combination of Z-plasty and suprapubic lipectomy for lengthening of penis.

MATERIAL & METHODS: Between 2004 and 2014, 24 patients which complained short penis with a variety of etiologies were included. All patients underwent combination of penoscrotal Z-plasty and suprapubic lipectomy. The outcomes were assessed based on the preoperative and postoperative penis length in the flaccid state at maximal stretch, patient and partner satisfaction. The changes between preoperative and postoperative stretched penis length (SPL) were compared using the paired student t test.

RESULTS: Median age of patients was 30.5 (20 - 72) years. The etiologies were congenital micropenis in 13 (%54), shortening of the penis after penile surgery in 6 (%25), penile curvature in 4 (%16) and epispadias in 1 (%5) of the patients. Mean preoperative and postoperative penis lengths were 8.4 (6-11) and 10.7 (7.3-14) cm, respectively. The mean increase in SPL was 2.3±0.6 cm (min. 1.3- max. 3.5 cm) (p< 0.05). The patient and partner satisfaction rates were %70.8 (17/24) and %41.6 (10/24), respectively.

There was only one postoperative complication which was a wound infection at the suprapubic incision in a patient with uncontrolled diabetes mellitus.

CONCLUSIONS: The combining of the penoscrotal Z-plasty and suprapubic lipectomy is an safety, effective and satisfactory procedures for lengthening of the penis in selected patients.

Eur Urol Suppl 2014; 13(7) e1618
S315: Reversal surgery in regretful male to female transsexuals after sex reassignment surgery

Kojovic V., Bizic M., Kojic S., Jocic D., Majstorovic M., Stojanovic B., DJordevic M.

1School of Medicine, University of Belgrade, Dept. of Urology, Belgrade, Serbia, 2School of Medicine, University of Belgrade, Dept. of Plastic Surgery, Belgrade, Serbia, 3School of Medicine, University of Belgrade, Dept. of Vascular Surgery, Belgrade, Serbia

INTRODUCTION & OBJECTIVES: Sex reassignment surgery (SRS) has proven to be an effective intervention for the patient with gender identity disorder. However, misdiagnosed patients regret their decision and request reversal surgery. This review is based on our experience with six patients who regretted their decision after male to female surgery.

MATERIAL & METHODS: Between November 2010 and January 2014, six male patients, aged 33 to 53 years, with a previous male to female sex reassignment surgery, underwent reversal phalloplasty. Preoperatively, they were additionally examined by three independent psychiatrists. Surgery included three steps: removal of female genitalia, total phalloplasty with microvascular transfer of the musculocutaneous latissimus dorsi flap and urethral lengthening with penile prostheses implantation.

RESULTS: Follow-up period was from 6 to 42 months (mean 18 months). Good postoperative results were achieved in all patients. In three patients all surgical steps have been completed; two patients are currently waiting for penile implants, while one patient decided against penile prosthesis. Complications were related to urethral lengthening: two fistulas and one stricture were noted. All complications were repaired by minor revision. According to patients’ self-reports, all patients were pleased with the esthetic appearance of their genitalia and with their significantly improved psychological status.

CONCLUSIONS: The vast majority of properly diagnosed transsexual patients are satisfied with their decision following gender reassignment surgery, with only a few regretting it. Reversal surgery present complex and multistage procedure, but it leads to satisfactory outcome. It is indicted only after a new cycle of thorough preoperative psychiatric and endocrinological treatment. Further insight into the characteristics of persons who postoperatively regretted their decision would facilitate future selection of applicants eligible for SRS.

Eur Urol Suppl 2014; 13(7) e1619
S316: Sigmoid vaginoplasty as a viable surgical option for male to female transsexuals

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INTRODUCTION & OBJECTIVES: Numerous techniques for creation of neovagina have been described. However, sigmoid segment of colon seems to present the most natural substitute for vaginal tissue. Objective of this study is to present our refinements in sigmoid vaginoplasty in male to female transsexual patients.

MATERIAL & METHODS: Between April 2000 and July 2013, 29 patients, aged 19 to 51 years (mean 28), underwent sigmoid vaginoplasty as a treatment of male to female transgenderism. Five patients opted for this procedure as a primary type of vaginoplasty, while 24 previously underwent failed penile inversion vaginoplasty. Sigmoid segments, ranging from 8 cm to 11 cm, were isolated, to avoid excessive mucus production. Preferably, it should be dissected distally first in order to check its mobility and determine the correct site for its proximal dissection. Stapling device was used for the colorectal anastomosis as the safest procedure. Creation of perineal cavity for vaginal replacement was performed using a simultaneous approach through the abdomen and perineum. Perineal skin flaps were designed for anastomosis with sigmoid neovagina to prevent the postoperative introital stenosis. Circumferential anastomosis was avoided to prevent purse string scarring with subsequent vaginal stenosis and to achieve satisfactory aesthetical appearance without prolapse.

RESULTS: Follow-up ranged from 12 to 171 months (mean 67 months). Excessive mucus production, vaginal pain or diversion colitis were not reported. Long term follow-up showed introital stenosis in 4 cases (13.8 %). Two of them responded to vaginal dilatation, and two required additional repair. Sexual and psychosocial outcome, according to Female Sexual Function Index, Beck’s Depression Inventory and standardized questionnaires, was satisfactory in 24 patients (82.6%).

CONCLUSIONS: Technical refinements in sigmoid vaginoplasty significantly decreased the number of complications that usually occur in this type of vaginoplasty. Majority of these patients have a normal sexual life with high satisfaction rates. Sigmoid vaginoplasty presents an excellent option for male to female patients, either as a primary option or as a salvage surgery.

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INTRODUCTION & OBJECTIVES: To investigate the incidence, etiological factors, and the effect of early diagnosis and surgical treatment on the outcome of iatrogenic ureteric injuries treated in our urology unit over an 16-year period.

MATERIAL & METHODS: A retrospective review was performed on all patients referred for management of an iatrogenic ureteric injury from 1998 to 2014. Data collected and analyzed included incidence of injury, etiological factors, modalities of treatment and the outcome of management of the injuries.

RESULTS: There were 79 iatrogenic ureteric injuries in 75 patients over the 16-year period. Urological, obstetrical, gynecological, general surgical and neurosurgery procedures were involved in 18 (22.7 %), 11 (13.9%), 39 (49.3%), 10 (12.6%), 1 (1.5%) of the injuries, respectively. The commonest types of injuries encountered were ureteral ligations. The commonest treatment option used was end-to-end anastomosis. Ten patients were treated using the Boari bladder flap, 7 by ureteroneocystostomy, 28 by end-to-end anastomosis, 8 by delegation, 11 by double-J stent insertion, 4 by primary repair and 2 patient was followed conservatively. Five patient underwent nephrectomy. The overall successful resolution of ureteric injuries in this series was 79/74 (94.9 %). There was no mortality attributable to these ureteric injuries.

CONCLUSIONS: Iatrogenic ureteric injuries are globally rare but are liable to occur due to the inherent ureteric anatomic factors in the pelvis. The practical principles for the prevention and repair of ureteric injuries are presented and discussed. The true risk to the patient lies in delayed, missed diagnosis and inadequate treatment. Despite preoperative studies and intraoperative inspection, ureteral injury may remain undiagnosed until after abdominopelvic surgery. Early detection and appropriate management ensure successful recovery.

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INTRODUCTION & OBJECTIVES: The aim of this study is sharing our redo tubularized incised plate urethroplasty (TIPU) experiences that we have applied to the patients, who had hypospadias surgery before.

MATERIAL & METHODS: The data of 33 patients, applied redo tubularized incised plate urethroplasty (TIPU) in our clinic, who had hypospadias operation between February 2002 and September 2012, were analyzed retrospectively. The patients were evaluated in terms of their complaints, the previous technique and the technique and results of reoperation. The patients were divided into two different groups as follows: The patients with adequate and flexible skin around the penis ventral, sufficient subcutaneous skin tissue and good urethral plate were categorized as good prognostic group; whereas the patients with scar, low subcutaneous skin tissue and non-flexible skin and deformed urethral plate were categorized as poor prognostic group. Although the first surgeries of the patients were carried out by different surgeons, the reoperations were carried out by the same surgeon (YA). The patients, who had surgeries at least three times or more, have not been included in the study. The mean follow-up period was 26 months (8-124 months). Square test was used for statistical analysis.

RESULTS: The mean age of the patients was 6.2 (2-21 years old). 23 of these patients underwent an operation through TIPU technique, whereas 10 of them have experienced different techniques for their operations. Although one of the patients had chordee repair during the first surgery, Nesbit procedure was performed simultaneously due to the severe chordee. The techniques of the first surgeries, prognostic groups and success rates are shown in Table 1.

<table>
<thead>
<tr>
<th>First Operation</th>
<th>Prognostic Group</th>
<th>Complication</th>
<th>Success Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>TIPU (n=23)</td>
<td>Good (n=16)</td>
<td>n=1 (6%)</td>
<td>78%</td>
</tr>
<tr>
<td></td>
<td>Poor (n=7)</td>
<td>n=4 (57%)</td>
<td></td>
</tr>
<tr>
<td>MAGPI (n=3)</td>
<td>Good (n=2)</td>
<td>n=0</td>
<td>100%</td>
</tr>
<tr>
<td></td>
<td>Poor (n=1)</td>
<td>n=0</td>
<td></td>
</tr>
<tr>
<td>Onlay preputial flap (n=1)</td>
<td>Poor (n=1)</td>
<td>n=1 (100%)</td>
<td>0</td>
</tr>
<tr>
<td>Unknown (n=6)</td>
<td>Good (n=2)</td>
<td>n=0</td>
<td>33%</td>
</tr>
<tr>
<td></td>
<td>Poor (n=4)</td>
<td>n=2 (50%)</td>
<td></td>
</tr>
<tr>
<td>Total (n=33)</td>
<td>Good (n=20)</td>
<td>n=1 (5%)</td>
<td>95%</td>
</tr>
<tr>
<td></td>
<td>Poor (n=13)</td>
<td>n=7 (53%)</td>
<td>46%</td>
</tr>
<tr>
<td>Total (n=33)</td>
<td></td>
<td>n=8 (24.2%)</td>
<td>75.6%</td>
</tr>
</tbody>
</table>

The overall complication rate was 8/33 (24.2%), respectively. The fistula was developed in the four (12%) patients, while total opening was developed in one patient (3%) and the meatal stricture was developed also in one patient (3%). Simple fistula repair was applied to the patients with fistula development and dilatation was performed for the patient with stenosis. Tertiary TIPU was applied to
the patient that was diagnosed with total opening. The success rate of the good prognostic group was 95%, whereas it is 46% for the poor prognostic group (p<0.05). The total success rate was 75.6%.

**CONCLUSIONS:** Reoperative hypospadias surgery is often a difficult procedure. The best technique is still a question of debate. TIPU is a safe and successful technique for the patients that have unspoiled urethral plate, adequate and flexible skin around the penis ventral.

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S322: Congenital penile curvature corrections

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INTRODUCTION & OBJECTIVES: Congenital penile curvatures have incidence of up to 1%. The operative treatment represents the ideal method option with techniques differing with experience.

MATERIALS & METHODS: In 2012, three congenital penile curvatures are treated. All patients were younger than 20 years. Penile curvature photos in erection, clinical examination, echosonography, hormone status and sperm analysis in one case were the basics of diagnostic evaluation. Two cases were treated with Esed Shreder operation and in one case the Nesbitt procedure was done.

RESULTS: Preoperative curvature angle was in all cases over 45 degrees. Plaque presence was ruled out by ultrasonography and clinical examination. Postoperatively neither hematoma nor other complications were noted. Circumcision was done in two cases three months postoperatively. Sensibility loss was not present in any case. In all cases correction satisfactory for vaginal penetration was achieved. The penile shortening was negligible for patients in all three cases.

CONCLUSIONS: The presented congenital penile curvature corrections with excellent results favor early operative treatment. The Nesbit technique although technically demanding is literary supported with lower incidence of re-intervention.

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 INTRODUCTION & OBJECTIVES: Writing guidelines and standardized forms were created for the pathology reports. However, there may be different approaches about the pathology reports between the clinicians and pathologists. The aim of this study is determining the expectations of urologists about the pathology reports and revealing their criticism.

MATERIAL & METHODS: This study is a web-based survey. Survey was prepared by Google docs. The survey was sent out to a total of 1109 urologists related to the pathology reports; which included one open-ended and 18 multiple-choice question. 160 of the urologists (14.4%) have sent back the survey. The satisfaction of the works produced by the department of pathology was questioned by asking them to give a score out of 5. The results of the scores were evaluated by the weighted average scoring.

RESULTS: The 52 (32.5%) of the 160 respondents were working at the university hospitals, while 26 (16.2%) of them were working at the education and research hospitals, 30 (18.7%) of them were working in the state hospitals and 46 (% 28.7) of them were working at private hospitals. Half of the respondents have given 4/5 points for the sufficiency of the pathology reports, their understandability and clarity. When we have questioned the reliability of the institutions, we have observed that the most reliable institutions are the university hospitals with a score of 4.5, whereas the least reliable institutions are the state hospitals with a score of 2.9. The score of education and research hospitals were 3.5, whereas the private laboratories had 3.2 points and private hospitals received 3 points. When we have questioned whether the pathologists follow the current staging system, we observed that the 78% of the urologists think positively about this matter. The contribution of the pathology departments to the scientific studies and the fulfilment of the frozen requests of urologists have received 3 and 2.6 points respectively. The question about the time that passes until the clinician receive the pathology report received a weighted mean score of 2.9. Finally, 49% of respondents gave 4 points to the overall satisfaction with the service provided. The weighted average of the responses to this question was 3.4. An open-ended question was asked about opinions and suggestions for the pathology reports. There were various answers to this question; however, the expectation about faster delivery of the pathology reports to the clinician and the importance of the communication between the urologists and pathologists were the most prominent answers.

CONCLUSIONS: There is an expectation in the urology specialist related to the pathology reports to be prepared earlier. The urologists do not consider the pathology laboratories capable of meeting their frozen requests. However, the services provided by pathology laboratories and the communication with pathologists were assessed positively.

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S324: Modified clavien complications in a mid-volume urology clinic performed in a year

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INTRODUCTION & OBJECTIVES: The aim of this study is to evaluate the complications according to modified Clavien Classification System of complications performed in our department during the year 2013.

MATERIAL & METHODS: Between January 1 and December 31, 2013 a total of 1068 operations were performed in our department. General urology (including urologic oncology), andrology and paediatric urology cases were 656 (%61.5), 198 (%18.5) and 214 (%20) cases, respectively. Residents performed %44, whereas faculty and fellows performed %56 of cases. Data was obtained and evaluated retrospectively.

RESULTS: According to Modified Clavien System complications were encountered in 102 cases (%9.5). Complication rates were %8.67 (n=93) in Clavien I-II, %0.65 (n=7) in Clavien III and %0.18 (n=2) in Clavien IV-V, respectively. Major complications (III, IV and V) were 2 nephrostomies following anastomotic leakage after radical cystectomy and ileal conduit, 1 nephrostomy following anastomotic leakage following laparoscopic pyeloplasty, 1 percutaneous drainage catheter placement (PDCP) following lymphocele after laparoscopic donor nephrectomy, 1 PDCP following simple nephroureterectomy, 1 exploration following radical nephroureterectomy due to haemorrhage, 1 exploration following ureteral perforation of a retroperitoneal fibrosis patient during double J catheter replacement, a patient undergoing transurethral resection of prostate for benign prostatic hyperplasia had rectal perforation and had a colostomy subsequently. Lastly, a patient with metastatic AML and ASA IV undergoing transurethral resection for macrohematuria has developed respiratory insufficiency and exitus was seen.

CONCLUSIONS: Being aware of surgical complications is an important parameter evaluating the quality of surgical procedures performed. The complications encountered in our department are generally minor and acceptable.

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