

in histological specimen after RPE. We evaluated outcomes of adjuvant treatment (PSA level) and survival of patients.

**Results:** Ten patients (3%) had a carcinoma infiltration of lymph nodes; their average PSA level was 11.8 before radical prostatectomy. Their average age was 65 years. Gleason score 6 was in 6 patients, 7 was in 4 patients and 8-10 was in 5 patients. Sequential radiotherapy combined with hormonal treatment was used in 7 patients and 2 patients underwent the only androgen deprivation. One patient refused sequential treatment. No patient died for prostate cancer. Seven patients are in long-time remission with PSA <0.1. Three patients are with slow progression (DT). Patient, who refused a treatment, is in a long-time remission with PSA <0.1.

**Conclusions:** Infiltration of pelvic lymph nodes is a poor prognostic factor. An adjuvant treatment would be indicated. Use of adjuvant oncological treatment can achieve a long-time remission and survival of patient.

### C97

#### Comparison of clinical and pathological features between prostate cancers detected by the first biopsy and by re-biopsy with an extended scheme

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**Introduction and Objectives:** To compare clinical and pathological characteristics between patients undergoing radical prostatectomy for clinically localized prostate cancer (PC) detected in the first prostate biopsy and those detected in the re-biopsy with a 24 core extended scheme.

**Material and Methods:** Overall, 256 patients treated with radical prostatectomy between January 2005 and December 2007 were eligible for analysis. PC was detected by the first prostate biopsy with at least 6 to maximal 12 cores (mean 8.6) in 201 patients (group 1), and in 55 men by extended re-biopsy with 24 cores (group 2), respectively. Re-biopsy rate ranged between 1 and 8 (mean 2.5). Clinical and pathological parameters were compared between both groups using Student's t-test and Chi-squared test. Cohen's kappa (k) coefficient was used to measure the agreement of Gleason scores of the fine-needle-core biopsies and radical prostatectomy specimens.

**Results:** Mean age was similar with 61.1 years of group 1 and 61.7 years of group 2 (p=0.633). The median serum PSA and PSA ratios were 5.9 ng/ml and 11.1% in group 1 as well as 7.8 ng/ml and 10.9% in group 2 (p=0.372 and p=0.596), respectively. A suspicious digital rectal examination (DRE) was assessed in 33.6% of group 1 and 10.6% of group 2 (p=0.002). Stages pT2, pT3a and pT3 b were assessed in 77%, 15.5% and 7.5% of group 1 and 85.3%, 9.1% and 5.5% of group 2 (p=0.618), respectively. Gleason score of ≤ 6, 7 and ≥ 8 in prostatic biopsy specimens were diagnosed in 70.2%, 24.0% and 5.8% in group 1 and 69.2%, 23.1% and 7.7% in group 2 (p=0.874). The corresponding Gleason scores of the radical prostatectomy specimens were 34.5%, 56.5% and 9.0% in group 1 and 39.6%, 56.6% and 3.8% in group 2 (p=0.415). Agreement between biopsy and prostatectomy Gleason Score expressed by Cohen's kappa, revealed coefficients of 0.250 in group 1 and 0.356 in group 2. More specifically, concordance was higher in group 2 with 51.9% vs. 45.7% in group 1. Biopsy Gleason score showed a more frequent undergrading in group 1 with 47.2% vs. 34.6% in group 2, whereas overgrading was more frequently observed in group 2 with 13.5% vs. 7.1% in group 1.

**Conclusions:** The comparison revealed 2 relevant differences. Firstly, the concordance between Gleason score of needle biopsy and radical prostatectomy specimens was distinctly higher in

the extended re-biopsy cohort. And secondly, patients with PC detected by a 24 core extended-re-biopsy scheme presented with a significantly lower rate of suspicious DRE. Hence, the clinical impact of routinely performed DRE in patients after negative prostate biopsy appears small.

### C98

#### Two generations of Partin Tables: Comparison of predictive accuracy

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**Introduction and Objectives:** The external validity of predicting pathological stage in clinically localized prostate cancer between the Partin Tables of 2001 and their updated version of 2007 was compared.

**Material and Methods:** Clinical and pathological data of 687 consecutive patients who underwent radical prostatectomy for clinically localized prostate cancer between January 2003 and December 2008 were used to compare the Partin Tables of 2001 and 2007 in their external validity. Receiver operating characteristic (ROC) curve were performed to compare the observed and predicted rates of the Partin Tables for organ-confined disease (OC), extracapsular extension (ECE), seminal vesicle invasion (SVI) and lymph node involvement (LN).

**Results:** Mean age of patients was 62.1 (±6.4) years, and mean PSA was 8.2 (±5.2) ng/ml. An unsuspected digital rectal examination (T1c) was assessed in 71.5% of patients. Of the whole cohort, 76.2% of men were presented with OC, 17.8% had ECE, 6.0% showed SVI and 1.2% had lymph node involvement in the obturator region. The area under the receiver operating characteristic curve (AUC) of the Partin Tables of 2001 and 2007 were 0.727 and 0.722 for OC, and 0.662 and 0.650 for ECE. The Partin Tables of 2001 and 2007 showed an AUC of 0.788 and 0.779 for SVI, and 0.786 and 0.746 for LN, respectively.

**Conclusions:** Our external validation shows a good accuracy of the updated Tables to predict OC, SVI and LN. However, the predictive accuracy for ECE was only modest for both versions of the Partin Tables. Overall, the newer version of the Partin Tables could not outbalance the version of 2001 in their predictive accuracy for any pathological stage, and they failed to demonstrate a clear advantage. Our results underline the necessity to perform an external validation before the implementation of a new predicting tool.

### C99

#### Occurrence of prostate cancer in patients with muscle-invasive bladder cancer after radical cystoprostatectomy

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**Introduction and Objectives:** Abstract objective is evaluate incidence of prostate cancer (PC) and prostate transitional cell cancer in patients with muscle-invasive bladder cancer after radical cystoprostatectomy (CE).

**Material and Methods:** Retrospective study of patient file with muscle-invasive bladder cancer who underwent surgery (radical cystoprostatectomy) in years 2000 – 2009. Surgery underwent 150 men. Histological investigation was focused on prostate to locate prostate cancer and prostate transitional cell cancer. Mean age of our patient file was 62 years.

**Results:** Histological investigation located prostate cancer in 23 patients (15%) and prostate transitional cell cancer in 12 patients (8%). Gleason score of prostate cancer was between 3 till 9, therefrom 5 patients (22%) had Gleason score ≥7. All

patients with prostate cancer had the pathological stage T2, only 1 patient had the pathological stage pT3a. In one case there was a prostate cancer with cT3b after the treatment (RT and OE) and we have not found any malignant cell in prostate. Mean age of patients with prostate cancer was 67 years against mean age of whole patient file.

**Conclusions:** Our results promote the published studies that affection of the prostate by transitional cell cancer and prostate cancer is relatively often finding in preparations after cystoprostatectomy. Prostate sparing radical cystectomy should be preventing particular examination to minimize risk of holding the tumor in patient.

#### C100

##### Lateral decubitus position is less painful than lithotomy position for patients undergoing prostate biopsy

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**Introduction and Objectives:** The purpose of our study was to determine if patient's position during prostate biopsy can influence their perception of pain during procedure.

**Material and Methods:** Between February and November 2008 we performed transrectal ultrasound (TRUS) guided biopsies on 139 men. They were divided in 3 groups: group 1 was in lateral decubitus position (n=41), group 2 was in lithotomy position with the insertion of intrarectal 2% lidocain gel (n=50) and group 3 was in lithotomy position without gel (n=48). All patients underwent biopsy for the first time. None of them were using analgesics at the time of procedure. Rectal abnormalities were excluded before insertion of ultrasound probe. 12-core samples were taken each time. Immediately after the procedure patients were asked to grade the pain they felt during the procedure with 10-point visual analogue scale (VAS).

**Results:** Kruskal – Wallis non-parametric test was used to compare three groups of sampled data. In group 1 median pain score was 2.6; in group 2 it was 4.95 and in group 3 it was 4.6. There is a significant lower perception of pain in the group in lateral decubitus position during biopsy (p=0,00002).

**Conclusions:** Our study showed that lateral decubitus position could be less painful for patients than lithotomy position. There was no significant difference in pain perception between groups in lithotomy position regardless of applied lidocain gel.

#### C101

##### Detection of ETS translocations using Affymetrix exon 1.0 ST arrays

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**Introduction and Objectives:** Gene rearrangements can be an initial event in oncogenesis. Whereas prostate cancer (PrCa) specific TMPRSS2-ERG fusions are frequent genomic alterations, fewer TMPRSS2 fusions with other ETS transcription factors have been described. Cancer Outlier Profile Analysis (COPA) led to the identification of gene fusions in PrCa. Our recent study aims to use COPA analysis on the new Affymetrix exon 1.0 arrays to assess the prevalence of outliers in PrCa patients. We validated the technology using the ERG exon specific gene expression data.

**Material and Methods:** Based on the pathology findings of 70 radical prostatectomy specimens four groups of patients were identified: 1) low grade (LG-PrCa; n=20), 2) high grade (HG-PrCa; n=22) 3) castration resistant (CR-PrCa; n=21) and 4) metastatic (Met-PrCa; n=7). Following RNA isolation

gene profiling was performed using a microarray technique (GeneChip, Affymetrix). We did bioinformatic analysis, including COPA on the standard gene set (23,000 genes).

**Results:** 250 outliers genes were identified on a microarray analysis. ETS transcription factors family genes: ERG, ETV1, ETV4 and ETV5 were selected for further experiments. ERG, ETV1, ETV4 and ETV5 were overexpressed in 39 (55%), 4 (5.7%), 2 (2.8%) and 2 (2.8%) of tumors, respectively. Further, in all tumors overexpressing ERG, TMPRSS2-ERG fusions were identified using an independent test. The overexpression of ETV1 and ETV5 was only observed in all cases of aggressive PrCa.

**Conclusions:** We confirmed in this COPA analysis of expression data from 70 prostate cancers the frequent overexpression of ETS oncogenes. Except from the common TMPRSS2-ERG fusions, we haven't been able so far to identify new 5' fusions partners. Additionally, we were able to show that ETV1 and ETV5 were overexpressed in patients with aggressive PrCa. Therefore, exon 1.0 ST arrays can be used to lead the way in the discovery of gene fusions.

#### Poster session 7: Laparoscopy and Reconstructive surgery Saturday, 24 October 2009, 09:20–11:30

##### Poster room 1

#### C102

##### Complete laparoscopic nephroureterectomy

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**Introduction and Objectives:** Urologists are still looking for the best method of accomplishing a nephroureterectomy (NUE). While a laparoscopic nephrectomy (LNE) as a part of NUE is yet broadly accepted, removing the ureter is still problematic – the approach (endoscopic, open, and laparoscopic) and consequence of steps. We present results of a recently described complete laparoscopic NUE (CLNU) with thermosealing system (Tsvivan et al: Eur Urol, 2007, 52; 1015–9).

**Material and Methods:** We start CLNUE in the flank position with standard LNE through 4 (left side) or 5 ports (right side). The ureter is liberated with harmonic scalpel or thermosealing system (Ligasure Advance®) to the urinary bladder. The gonadal vein must be cut off. Ureter is excised with bladder cuff with thermosealing system (Ligasure Atlas®) introduced through another suprapubic port 10 mm. Specimen is removed in bag through muscle splitting incision of the lower abdomen. A permanent bladder catheter is removed on the 5<sup>th</sup> postoperative day. From 4/2008 to 6/2009, 19 patients underwent NUE. Three LNUE with an open ureterectomy for an advanced tumour of the distal ureter, one open NUE with a lymphadenectomy for an advanced tumour of pelvis. Fifteen underwent CLNU. They are evaluated in details.

**Results:** Eight men and seven women, the mean age 68±8 (57–80) years. Five times on the left side, 10× on the right side. Tumour was in the renal pelvis 8×, in ureter 4× (2× in the distal ureter). The mean time of operation was 126±21 (86–160) min. In three cases, CLNUE was preceded 3× with cystoscopy (1× with transurethral resection of urinary bladder tumour) and 3× with diagnostic ureteroscopy, the time of the endoscopies wasn't included to the time of CLNUE. In one woman, CLNUE was performed ipsilateral to a transplanted kidney to the iliac fossa. The mean blood loss was 62± 57 (0–200) ml. The mean weight of specimen was 478±211 (210–1067) g. The histology