

study is to evaluate the results of PVP with Greenlight HPS 120W laser in the treatment of first 100 consecutive patients.

**Material and Methods:** 100 consecutive patients underwent PVP with Greenlight HPS 120W laser in years 2006–2008. 65 patients were on anticoagulants due to cardiac diseases. The mean patients' age was 67.2 years and the mean prostate size was 64.8 ml. We evaluated various objective and subjective parameters before and 1, 6 and 12 months after PVP. Duration of the procedure, time of catheterization and hospitalization as well as morphological and biochemical parameters and intra- and postoperative complications were assessed.

**Results:** The mean duration of the procedure was 56 minutes. The mean catheterization time after PVP was 18.3 hours. The mean hospitalization time after PVP was 28.1 hours. The mean maximum urinary flow rate (Q<sub>max</sub>) improved from 9.7 before to 21.9, 22.5 and 21.8 ml/s at 1, 6 and 12 months, respectively. The mean post-voiding residual volume (PVR) decreased from 116.4 to 33.5, 31.7 and 32.3 ml. IPSS decreased from 24.9 to 11.1, 7.3 and 7.2. QoL score decreased from 4.7 to 2.2, 1.7 and 1.6. There was no major complication during PVP. No significant change in hematocrite and sodium serum level was observed. No blood transfusion was necessary. Most common postoperative complications included transient dysuria and hematuria. 2 patients required recatheterization due to urine retention. 16 out of 42 (38.1%) sexually active patients experienced retrograde ejaculation. 4 patients required second procedure (2 TURP and 2 urethrotomy).

**Conclusions:** Photoselective vaporization of the prostate with Greenlight HPS 120W laser appears to be effective and safe treatment modality for patients with BPH. Moreover, it can be safely used in patients with cardiac diseases and on oral anticoagulation.

### N30

#### Green laser vaporization of the prostate – 300 procedures experience

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**Introduction and Objectives:** Therapeutic strategies for benign prostatic hyperplasia (BPH) are still innovative. Ideal is minimally invasive ambulatory procedure. The photoselective vaporization of the prostate by potassium titanyl phosphate (KTP-green) laser seems to be good tool for BPH treatment

**Material and Methods:** From August 2003 to January 2009, a group of 301 men (16 with complete urinary retention) in age from 51 to 87 years with benign prostatic hyperplasia (BPH) who underwent KTP 80 watts laser prostatectomy were observed. Preoperative prostate volume estimated by TRUS ranged from 31 to 136 cc. International prostatic symptom score (IPSS) was in all over 21 points and QoL over 3 points. PSA range, estimated before treatment, has been normal in 238 pts. In 51 was over 4 and less than 10 ng/ml (4.41–9.23 ng/ml) with F/T PSA ratio over 20% and in 12 PSA was over 10 ng/ml performed prostate biopsies were negative. Mean urine residual volume was 99.4 ml.

**Results:** Follow-up was from 4 to 268 weeks. The mean lasing time was 41 minutes (11–84 min). Mean delivered laser energy was 89 018 J (9425–221670 J). 284 pts were not catheterized at the finish of the procedure. In 17 (16 with urinary retention before treatment) catheter was removed 12 to 24 hours after treatment. All pts experienced few days of mild dysuria. Four pts required catheterization in the first day after treatment. In five pts increasing of body temperature to 38°C was observed in the first day after treatment. 24 hours after treatment haematuria required catheterization was observed in two pts. 7 days after treatment in 4 pts massive haematuria was observed (two required hospitalization without blood transfusion). In seven

pts (prostate volume >120 cc) because of urinary retention (in one pts 4 weeks, in 6 pts 8 weeks after PVP) transurethral resection of the prostate was performed. In one pts urethral stricture was dissected. 4 weeks after PVP IPSS decreased after 12 weeks from 24 to 14 and after 52 weeks to 9. The mean peak urinary flow rate increased after 4 weeks from 8.3 ml/sec to 16.9 ml/sec and after 12 weeks to 18, 9 ml/sec. The mean prostate volume decreased by 37%. Mean postoperative residual volume has been estimated after 4 weeks (~38.6 ml) and after 24 weeks (~29.3 ml).

**Conclusions:** In over 90% of treated by PVP pts I-PSS and QoL decreased after 4 weeks. Significant increase of Q<sub>max</sub> was observed in pts after 4 weeks from PVP as well as significant decrease of post residual volume. In 95% of pts no signs of bacteriuria were observed. In some pts with prostate volume over 120 cc haematuria and incidents of urinary retention which caused TURP were observed.

### N31

#### Detection rate of prostate cancer in double sextant biopsy regions

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**Introduction and Objectives:** Our aim was to evaluate the detection rate of prostate cancer in each of the 12-core, or double sextant biopsy region (Naughton et al, 2000), in men undergoing transrectal ultrasound (TRUS)-guided biopsies.

**Material and Methods:** For this purpose 65 men with prostate specific antigen level <15 ng/ml and non-remarkable digital rectal examination underwent transrectal ultrasonography-guided 12-core prostate biopsy due to clinical suspicions of neoplasia. Biopsy was performed by Bard® Magnum® Biopsy Instrument with Quick-Core® Biopsy Needles QC-180020-20T and end fire TRUS-probe. Tumour affected one lobe of prostate in all of these patients according to biopsy result. We evaluated detection rate of prostate cancer in each of double sextant biopsy region.

**Results:** The percent of positive cores on the left and on the right side of prostate was similar (45% vs. 55%). Differences were regarded as statistically insignificant (P>0.05). Then we measured detection rate in each of the double sextant biopsy region from left and right lobe. The results were the following: laterally directed cores from the apex – 29%, standard cores from the apex – 36%; laterally directed cores from the midgland – 33%, standard cores from the midgland – 43%; laterally directed cores from the base – 33%, standard cores from the base – 35%.

**Conclusions:** The detection rate of prostate cancer in each of double sextant biopsy region was very similar and there are no statistical significant differences between them (P=0.87–0.23).

### N32

#### Determination of free/total prostate specific antigen ratio in different age categories for diagnosis of prostate carcinoma

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**Introduction and Objectives:** The aim of this study was to determine cutoff levels of free/total PSA (f/t PSA) ratios

in different age groups for diagnosis of Prostate Carcinoma, focusing on the avoidance of unnecessary prostate biopsies.

**Material and Methods:** A total of 4955 men (a mean age of  $63.3 \pm 11.3$ ) without a history of prostate surgery and disease were enrolled into the study. Serum tPSA, fPSA and f/t PSA ratios were determined for the study population and for different age categories. All males who had suspicious digital rectal examination and tPSA  $>4$  ng/mL underwent transrectal ultrasonography-guided prostate biopsy. Receiver operating characteristic (ROC) curves for each group were generated by plotting the sensitivity vs.  $1 - \text{specificity}$  for the f/t PSA ratio. The sensitivity and specificity were obtained using different f/t PSA ratio cutoffs for different age groups.

**Results:** Prostate cancer was detected in 109 patients (2.2%). There were 657 patients with a PSA level of 4–10 ng/ml. According to sensitivity and specificity f/t% PSA cutoff points were 13%, 18%, 14% and 13% in 50–59, 60–69,  $>70$  and all ages categories in patients with initial PSA level of 4–10 ng/ml.

**Conclusions:** The current study showed that the use of f/t PSA ratio in patients with PSA levels of 4–10 ng/mL should enhance the specificity of PSA screening and decrease the number of unnecessary biopsies. f/t PSA levels may show dissimilarities according to age, so further studies are warranted to identify this relationship.

### Poster Session 3: Bladder Cancer

Friday, 11 September 2009, 10:30–12:30

#### Poster room 3

#### N33

#### The rate of incidental prostate cancer in patients who underwent radical cystoprostatectomy and its clinical significance

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**Introduction and Objectives:** In this study, we aimed to determine the rate of incidental adenocarcinoma of prostate in patients undergoing radical cystoprostatectomy (RSP) and to assess its clinical importance in the light of literature.

**Material and Methods:** In our clinic from 1995 to 2008 the medical records of 135 (40–82 years) patients with invasive bladder cancer who underwent RSP, were reviewed retrospectively. None of these patients had had any evidence of prostatic adenocarcinoma before cystoprostatectomy. Pathologically, 4 cross sections were routinely taken from each prostate specimens, including one from the apical surgical border.

**Results:** A total of 10 (7.4%) coincidental adenocarcinoma of prostate were detected in 135 patients. Mean age of the patients with prostate carcinoma was 70.2 years (Range:63–80 years). All patients had had normal prostate specific antigen (PSA) levels (1.3–3.4 ng/ml) and normal digital rectal examination findings before surgery. Gleason scores were 4, 5 and 6 in 7, 2 and 1 patient, respectively. All patients with prostate carcinoma had negative surgical border on prostatic apex. All patients had PSA levels less than 0.1 ng/ml on the third month after RSP. Follow-ups of four patients ranged between 52–61 months and no PSA recurrences was recorded.

**Conclusions:** The coincidental presence of prostate cancer with bladder cancer should be kept in mind and therefore detailed pathological examinations should be carried out.

#### N34

#### The evaluation of recurrence rates within the first year for Ta T1 low and intermediate transitional cell carcinoma of the bladder to change the routine follow-up cystoscopies

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**Introduction and Objectives:** Frequency of cystoscopic follow-up of superficial bladder cancer is still causes confusion and has not been clearly defined. Cystoscopic follow-up is a considerable workload for the urologist and is also an invasive procedure for the patient with high costs. In the study, we reviewed our experience to determine any possible criteria which can lead to reduce the frequency of follow-up cystoscopy, retrospectively.

**Material and Methods:** Between 1998–2008, 641 patients with primary stage Ta and T1 bladder cancers that were treated in our department were evaluated retrospectively. The pattern of recurrence and the recurrence rates in the first year were assessed.

**Results:** The recurrence rate was 21% at 3 months. The recurrence rates at 6 and 9 months were 9.2 and 11.9% respectively. The recurrence rate at 12 months was 8.3%. For tumors with no recurrence at 3 months, the recurrence rates at 6, 9 and 12 months were 8.6, 11.4 and 7.19% respectively. With respect to stages, there was a statistically significant difference in recurrence rate stages pTa and pT1 in the first and in the third control ( $p=0.001$ ,  $p=0.003$ ) respectively. According to the recurrence rate within the first year, the difference between G1 and G2 tumors was not statistically significant regardless of the stage ( $p > 0.05$ ).

**Conclusions:** Patients with initial stage Ta or T1 grade 1 and 2 bladder cancers and negative first cystoscopy have a significantly lower recurrence rate than those with recurrence at first cystoscopy. In patients with initial low grade carcinoma, it seems logical to change the routine follow-up cystoscopy protocol. If the thirdmonth cystoscopy is tumor-free, it is appropriate to perform the next follow-up cystoscopy 1 year after the initial resection.

#### N35

#### Pathophysiological and clinical problems after urinary diversion

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**Introduction and Objectives:** During the period bowels had been used for urinary diversion (UD), many clinical and pathophysiological problems are seen.

**Material and Methods:** We want to focus on the most important problems, using the latest clinical data and own experience.

**Results:** Before Bricker in 1950 described his conduit, uretero-sigmoidostomy were the only UD used commonly. Malignancies are reported in large series and is about 3.5–19% [1]. In Denmark the few patients still alive is recommended to sigmoidoscopy when symptoms occur; in symptomless pt – bloodtest every year and sigmoidoscopy every 3<sup>rd</sup> year [2].

Metabolic acidosis has been reported in 100% of pt after ureterosigmoidostomy, bladder substitutions or continent reservoir [3]. Metabolic acidosis can be life-threatening, as we will show in our case later and prophylaxis with peroral bicarbonate is simple and cheap treatment.

The mucus production can be trouble as bad acute ureteric obstruction, can be important in reservoirs stones formation.

Asymptomatic bakteriuria in pt with reservoirs, rectal reservoirs and ileal conduits not require antibiotics, but symptomatic upper urinary tract infection shows problem with reflux or obstruction.

Urolithiasis formation is common in reservoirs due to artificial materials (e.g. staples), infections, abnormal composition of