5th – 9.1% (1 of 11) and 6th – 16.7% (1 of 6). Repeat biopsies had been undergone by 303 pts. and PCa was found in 118 (38.94%) cases. PCa detection rate at repeat biopsies was 26.63% of all cancer cases of our study. Time of 2nd repeat biopsy (<6 vs. 6–12 vs. >12 months) has no influence on PCa detection rate (27.3 vs. 21.6 vs. 31.8% respectively) – Chi-square test 3.055, p = 0.222. Time of all repeat biopsies (<12 vs. 12–24 vs. >24 months) in cases when PCa was detected has also no influence on cancer detection rate (38.2 vs. 42.5 vs. 33.8% respectively) – Chi square test 1.39, p = 0.509. The patient's age, PSA at the time of biopsy, HG PIN, LG PIN, time between biopsy sets have not been used as predictors of PCa detection at repeat biopsies. Logistic regression analysis shows that only prostate volume is a significant independent predictor for cancer detection at repeat prostate biopsies – Exp(B) 0.987, 95% CI 0.968–0.989, p = 0.0001. Significantly different PCa detection rate (52.1 vs. 42.2 vs. 24.8%) compares to prostate volume <40 vs. 40–60 vs. >60 mL (p = 0.001) was also detected using Chi-square test.
Conclusions: Time between repeat prostate biopsy sets has no influence on detection of prostate cancer. Prostate volume is a powerful parameter for prediction of prostate cancer at repeat biopsy and it could be used for choosing the time of repeat biopsy.

N27

Is there a need of routine pathological examination of all tissue specimens taken during benign prostate hyperplasia surgery?

M. Skrzypczyk, S. Poletajew*, J. Dobruch, A. Antoniewicz, T. Dzik, A. Borówka. *The Medical Centre of Postgraduate Education, Multidisciplinary Hospital Miedzylesie, Dept. of Urology, Warsaw, Poland*

Introduction and Objectives: In 2.8–9.8% of patients (pts) undergoing TURP or prostatectomy (PR) due to benign prostate hyperplasia (BPH) final pathological evaluation (PE) reveals coexistence of prostate cancer (PCa). WHO 2002 TNM classification defines pT1a and pT1b depending on the amount of cancerous tissue in the specimen <5% and >5%, respectively. However, PCa in 85% occurs in peripheral zone, which is not usually a target of BPH surgery. Moreover, the majority of PCa patients can be excluded from BPH group based on tests performed preoperatively: PSA and TRUS-core Bx. An important question arises, whether tissue specimens taken during surgery should always be examined. The aim was to evaluate the incidence of PCa diagnosed incidentally in prostate specimens taken during BPH surgery, to assess the need of routine PE and to define the group of patients, in whom PE could be abandoned without the risk of omitting coexistence of clinically significant PCa.
Material and Methods: 633 consecutive men aged 32–94 (mean age 70) treated due to BPH with TURP (86%) or PR (24%) in 5-year period (2004–2008) were enrolled. Mean values of prostate volume (Pv), serum PSA and PSA density (PSAD) were as follows: 71.44 (10–298) ml, 4.87 ng/ml (0.04–40.84), 0.08 (0.01–1.16). All specimens taken during TURP and PR were evaluated pathologically. Moreover, in 39 pts (6.1%) result of preoperative TRUS-core Bx was negative.
Results: PCa was found in 25 (3.9%) pts, less frequently after TURP (3.85%) than after PR (4.5%). PCa was staged as pT1a or pT1b in 9 (36%) and 16 (64%) cases, respectively. PCa grade defined in Gleason score (Gl.) as high risk (≥7) was diagnosed in 5 pts (20%) and all of them underwent TURP. PE in all pts, who underwent biopsy of the prostate before surgery, did not reveal cancer. Mean values of age, prostate volume (Pv), serum PSA level and PSA density (PSAD) in men with PCa and in men, in whom PCa was not found, did not differ significantly and were as follows: age – 74.76 (49–81) versus 70.14 (32–94) years, Pv – 102.44 (17–287) vs. 71.29 (10–298) ml, PSA – 2.92 (1.35–6.23) vs. 4.93 (0.04–40.84) ng/ml, PSAD – 0.04 (0.01–0.06) vs. 0.07 (0.01–1.16) ng/ml/ml, respectively. Additional treatment after BPH surgery was offered to 5 pts (20%), suffering from clinically significant PCa (pT1b, Gl. ≥7, age <70).
Conclusions: Incidence of PCa diagnosed incidentally in prostate specimens taken during BPH surgery is low (3.9%). A vast majority (80%) of PCa are low risk tumors (Gl. <7). However, it is difficult to establish any cut-off values of age, prostate volume, PSA or PSAD suggestive for the negligible risk of prostate cancer. Presented data suggest that PE of specimens taken during BPH surgery may be omitted especially in patients, in whom preoperative TRUS-core Bx were negative. Our results bring existing PE standards up for discussion.

N28

Reduction of PSA values after levofloxacin therapy in patients with PSA greater than 4 ng/ml: Implications for prostate cancer detection

G. Bozdogan[1], B. Erol[1]*, B. Akduman[1], H. Tokgoz[1], I. Donmez[1], G. Mungan[2], N.A. Mungan[2]. *[1]Zonguldak Karaelmas University Faculty of Medicine, Dept. of Urology, Zonguldak, Turkey; [2]Zonguldak Karaelmas University Faculty of Medicine, Dept. of Biochemistry, Zonguldak, Turkey*

Introduction and Objectives: Asymtomatic prostatitis may induce prostate-specific antigen (PSA) increase. PSA reduction-after antibiotics might identify those patients in whom biopsy can be avoided. The aim of our study was to investigate the possibility of reducing the number of prostate biopsies in patients showing PSA decrease or normalization after antibiotic therapy.
Material and Methods: This retrospective study was carried out between 2005 and 2007 in a university hospital. The study population comprised 274 subjects who underwent prostate cancer screening in our institution. Levofloxacin (LVX, 500 mg once a day.) was given orally for 3 weeks. Basal total-PSA (t-PSA) and free-PSA (f-PSA) determinations were repeated in all patients at study entry and after 3 week treatment with LVX, were compared.
Results: 235 patients (85.76%) showed PSA reduction after the therapy (Group I). In 39 of them (14.23%) PSA was increased (Group II) 39 of 235 patients had prostate cancer in Group I (16.5%). 8 of 39 patients had prostate cancer in Group II (20.5%). Mean PSA reduction was 18.4% in patients with benign pathology group (n:196) while it was 11.9% in patients with prostat cancer group (n:39)(p = 0.01). Initial PSA were found 9.36 ng/ml in patients with chronic prostatitis while it was 8.42 ng/ml in patients without chronic prostatitis (p = 0.04).
Conclusions: The treatment with LVX allowed to significantly decrease PSA values in 85.7% of the patients with asymptomatic prostatitis and PSA greater than 4.0 ng/ml. This approach could be useful in order to increase the specificity of PSA testing, reducing the number of unnecessary prostate biopsies.

N29

Photoselective vaporization of the prostate with Greenlight HPS 120 W laser in patients with benign prostatic hyperplasia – results of treatment of first 100 consecutive patients

H. Zieliński, G. Piotrowicz*. *Military Institute of Medicine, Dept. of Urology, Warsaw, Poland*

Introduction and Objectives: Photoselective vaporization of the prostate (PVP) with Greenlight laser is a promising minimally invasive procedure providing relief of the bladder outlet obstruction due to benign prostatic hyperplasia (BPH) with excellent safety profile. This technique is especially indicated for patients at high cardiac risk or on oral anticoagulation due to haemostatic properties of Greenlight laser. The aim of the

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 (Qmax) 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

M. Lipinski[1] *, L.M. Jeromin[2], W. Różański[2]. [1]*Medical University of Łódź, 2nd Clinic Dept. of Urology, Todz, Poland;* [2]*Medical University of Łódź, Dept. of Iind Clinic of Urology, Lodz, Poland*

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 over10 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 38ºC 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 4weeks. Significant increase of Qmax was observed in pts after 4 weeks from PVP as well as significant decrease of post residual volume. In 95% of pts no sings 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

A.E. Pryalukhin[1] *, A.I. Urbansky[2], M.E. Topuzov[1]. [1]*Mechnikov Saint Petersburg State Medical Academy, Dept. of Urology, Saint Petersburg, Russia;* [2]*Federal State Institution Russian Research Center For Radiology and Surgical Technologies, Dept. of Pathomorphology, Saint Petersburg, Russia*

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

B. Erol[1] *, N.A. Mungan[1], K. Onem[2], B. Akduman[1], G. Bozdogan[1], G. Mungan[3], H. Tokgoz[3], C. Eken[4]. [1]*Zonguldak Karaelmas University Faculty of Medicine, Dept. of Urology, Zonguldak, Turkey;* [2]*Istanbul University Faculty of Medicine, Dept. of Urology, Istanbul, Turkey;* [3]*Zonguldak Karaelmas University Faculty of Medicine, Dept. of Biochemistry, Zonguldak, Turkey;* [4]*Akdeniz University Faculty of Medicine, Dept. of Emergency Medicine, Antalya, Turkey*

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