of prostate cancer, high grade prostatic intraepithelial neoplasia (HGPIN) and perineural infiltration rates in men who had initial 24-core biopsies and to compare the results with a similar group of men who had initial 10-core biopsy protocol

Material and Methods: We retrospectively reviewed the contemporary maintained prostate biopsy database of men undergoing prostate biopsies for the first time in two referral centers by using the 10 (Group A) and 24 (Group B) biopsy protocols. Indications for biopsy were abnormal digital rectal examination and elevated age specific PSA Men were stratified according to biopsy protocol and PSA levels. Exclusion criteria were age ≥75 years, PSA > 20 or <2.5 ng/ml and clinical stage more than T2. The Mann-Whitney U and Fisher's exact test were used for statistical analysis.

Results: Between April 2004 and August 2007, 2169 men underwent TRUS prostate biopsies at these two referral centers from which 379 were eligible for the study. Group A (10-cores) consisted of 243 (64.11%) men and group B (24-cores) included 139 (35.89%) men. The overall prostate cancer detection rate was 39.09% and 34.55% in Group A and B, respectively ($p = 0.43$). An overall 9.8% increase in Gleason 7 detection rate was found in Group B ($p = 0.24$). The HGPIN detection rate in men with negative biopsies was 15.54% and 35.55% in Group A and B, respectively ($p < 0.001$). Regarding patients with PSA < 10 ng/ml, the 24-core technique increased Gleason 7 detection rate by 13.4% ($p = 0.16$) and HGPIN by 23.4% ($p = 0.0008$), compared to the 10 core technique. The 24-core technique increased the concordance between needle biopsy and prostatectomy specimen compared to 10-core technique ($p < 0.002$). There were no differences in perineural infiltration rates between both groups.

Conclusions: Initial 24-core biopsy protocol increased the detection of clinically sig nificant prostate cancer, HGPIN and improved the prediction of radical prostatecto my Gleason score in men with PSA < 10 ng/ml. It can be beneficial in a selected group of patients who are candidates for active surveillance.

S31
Trans-rectal ultrasound guided prostatic biopsy

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Introduction and Objectives: Trans-rectal ultrasound guided prostatic biopsy (TRUSgPB) is the most commonly used system for diagnosis of prostate cancer (PC). The indications are suspicious digital rectal examination (DRE), increased PSA and PSA velocity (>0.75–1.0 ng/dL/yr), low ratio F/T PSA, prior initiation therapy of 5α-reductase inhibitors, follow-up biopsy (3–6 mo) after diagnosis of high-grade PIN or ASAP, to diagnose failed radiation therapy before use of second-line therapy. The aim of this study was to analyze our rate of PC detection, its Gleason score and volume on biopsy and extracapsular extension (ECE), which are the most important prognostic factors.

Material and Methods: We have analyzed 190 patients retrospectively from 01.09.2008 to 01.06.2009, to whom we have performed extended TRUSgPB with local prostatic block analgesia and oral antibiotic prophylaxis. It was their first biopsy. The average age of the patients was 65.5 years (44–85).

Results: The indications for this procedure were abnormal DRE (98pts-51.57%) and only rising PSA level (92pts-47.89%). Of the 190 biopsies that have been done 86 (44.21%) were with Adenocarcinoma of the prostatae results; 67 (35.2%) - Prostatitis chr; 22 (11.5%) Hyperplasia prostatae; 19 (10%) – PIN High grade and ASAP. PC was found in the following age periods: 40–49 years old 3(1.57%); 50–59 -29(15.26%); 60–69 62(32.63%); 70–79 – 68 (35.7%) and over 80 years old -18 (9.47%). The PSA values of 0–4 had 5 patients (7.2%) and 2 pts had ACP-2.32%; 4–10 -86 pts (45.26%) had ACP 25 pts -29.06%; 10–20 -51 (26.84%) and 27 had ACP -31.39%; above 20 -35pts (18.42%) and 32 had ACP -37.2%. Complications were hematospermia in 62 pts (32.63%); Bleeding from urethra and bladeer in 31 pts (16.3%); rectal bleeding in 8 pts (4.21%); fever in 4 pts (2.1%); urosepsis in 2 pts (1.05%).

Conclusions: TRUSgPB is the gold standard for diagnosis of prostate cancer, which is the most common male cancer in developed countries. The use of PSA testing in serum and TRUSgPB allows us to detect the prostate cancer at a potentially curable stage, 5–10 years before giving rise to symptoms and on averagely 17 years before causing the death of the patient. Massive usage of TRUSgPB and PSA have also led to overdiagnosis detection clinically not significant cancers. Our everyday-task with the help of diagnostic tools, staging procedures and prognostic factors recognizes not only diagnosis of PC nor cases that should not be treated and group of patients who will benefit the most from early and active therapy. It's still a very controversial issue because PC is a histologicaly heterogeneous and multifocal disease.

S32
Effect of finasteride on the sensitivity of PSA to detect prostate cancer in rebiopsy series

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Introduction and Objectives: According to a secondary analysis on patients enrolled in PCPT, finasteride seems to improve accuracy of PSA in diagnosis of prostate cancer. However, PCPT was designed specifically to evaluate the efficacy of finasteride for chemoprevention of prostate cancer. Our aim is to evaluate, in a prospective study, the diagnostic accuracy of PSA in patients with prior negative prostate biopsy findings who were given finasteride for 6 months.

Material and Methods: We evaluated the diagnostic accuracy of PSA in detecting prostate cancer in rebiopsy series. The study cohort consisted of 91 men with prior negative biopsy findings, including HGPIN and excluding ASAP. All patients were instructed to take finasteride 5 mg daily for 6 months. Prostate biopsy was repeated at 6 months and the findings were compared to the initial results. PSA levels were measured at study onset and after 1, 3 and 6 months. We calculated the ROC curve of PSA under the effect of finasteride for detecting prostate cancer. All patients were evaluated at study onset and after 6 months by clinical examination, digital rectal exploration (DRE), International Prostate Symptom Score (IPSS) and National Institutes of Health Chronic Prostatitis Symptom Index (NHI-CPSI).

Results: The mean patient age was 68 years (66.7–69.4). The mean PSA level was 7.48 ng/ml (6.06–8.89). 84 patients completed the study with rebiopsy; 14 of these patients refused the rebiopsy. 7 were lost to follow-up due to poor compliance. Of the 70 patients, 13 were diagnosed with prostate adenocarcinoma. The median PSA level decreased similarly both in those with prostate cancer and in those without findings of cancer. There was no statistically significant difference between the two groups. The areas under ROC curve (AUC) of PSA at study onset and after 6 months of therapy with finasteride were, respectively, 0.484 (95% CI 0.363 to 0.606) and 0.543 (95% CI 0.420 to 0.663) (Figure 1). There was no statistically significant difference between the two areas.