

it to cancer stage and grade would be a useful adjunct for study of disease behavior.

**Material and Methods:** Retrospective pilot study on formalin fixed paraffin embedded needle biopsy tissue samples from prostate cancer patients was performed. Patient age was 59 – 86 years, median 72, Gleason score 6 – 9, median 7. Apoptotic markers studied were p53 and fragmented DNA (TUNEL), expressed as apoptotic index. Proliferative markers studied were Bcl-2, Ki-67, AgNOR. Immunohistological staining results of cancerous tissue were determined. Individual markers and models which considered opposing nature of apoptosis and proliferation were consecutively correlated to patient and disease characteristics. Parametric or non-parametric correlations were calculated according to variables distributions.

**Results:** Among individual markers, p53 staining inversely correlated with age of patients ( $p=0.022$ ) and Bcl-2 staining correlated with disease stage ( $r=0.65$ ,  $p=0.004$ ). Model which incorporated coded staining intensity of Bcl-2 and AgNOR on proliferative side and p53 on apoptotic side was significantly related to Gleason score ( $r=0.57$ ,  $p=0.018$ ) and disease stage ( $r=0.54$ ,  $p=0.026$ ).

**Conclusions:** Individual histological markers, studied here, were previously related to prostate cancer with mixed results. We believe their incorporation into models which account for opposing roles of biological processes involved (apoptosis and proliferation), should provide better insight and finally better disease behavior prediction and control.

#### C88

##### Active surveillance in prostate cancer – save option when knowing postoperative staging and grading? Single institution experience from 2003–2009

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**Introduction and Objectives:** Active surveillance (AS) is a very promising approach to prostate cancer treatment which is based on understanding to biologic behaviour of prostate cancer. Criteria for AS are very well known – staging  $\leq T2$ , Gleason score  $\leq 3+3a$  PSA  $\leq 10$  ng/ml. Aim of our study was to reveal the risk of presence of aggressive prostate cancer on the strength of available data from bioptic and postprostatectomy staging and grading when indicating active surveillance.

**Material and Methods:** During January 2003 to June 2009 we gathered clinical data from 560 consecutive patients who underwent radical prostatectomy. We evaluated preoperative PSA, bioptic and postoperative Gleason score and clinical and pathological staging. All the specimens were assessed by experienced pathologist from our Teaching Hospital to minimize interindividual variability of evaluating.

**Results:** Preoperative conditions for enrolling the patients to active surveillance, i.e. staging  $\leq T2$ , Gleason score  $\leq 3+3a$  PSA  $\leq 10$  ng/ml fulfilled 83 patients. Comparing the postoperative grading and staging worsening of one or both parameters occurred in total in 59% of patients – upgrading in 42 patients (50.6%), upstaging in 1 patient (1.2%) and both parameters worsened in 6 patients (7.2%). On the other hand 41% of patients according to final pathological report would still fulfill conditions for active surveillance.

**Conclusions:** At the time of detecting more and more insignificant prostate carcinomas active surveillance belongs to options how to prevent the patients or postpone potential serious adverse events resulting from the treatment with curative intent. Preoperatively in 59% of patients we supposed the patients were in low risk group. When knowing the

histology after radical prostatectomy these patients were put in intermediate or high risk group. Despite these results we apprehend active surveillance as a very promising options for carefully selected group of patients with regard to PSA kinetics, Gleason sum in prostate rebiopsy and clinical course of the disease. Both the patient and the urologist must understand that choosing active surveillance does not necessarily mean avoiding active radical therapy in the future.

#### C89

##### Hormone naive patients with advanced prostate cancer have lower initial BMD than healthy controls

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**Introduction and Objectives:** Androgen deprivation therapy (ADT) for advanced prostate cancer is considered the standard therapy over the last half of century. ADT is known to decrease bone mass density (BMD) which may lead into skeletal morbidity. Little is known about BMD of hormone naive patients with prostate cancer who are subjects of subsequent ADT. The aim of the study was to measure initial BMD of patients with prostate cancer prior to ADT and to compare their initial BMD to healthy control.

**Material and Methods:** Femoral neck and lumbar spine (L1–L4) were determined by dual-x-ray absorciometry (DXA) in 97 men (mean age 75.4 yrs) prior to ADT. These measurements were also made on control group of 89 patients (mean age 73.6 yrs).

**Results:** Patients with prostate cancer had significantly lower initial total BMD ( $p=0.022$ ) than healthy control. This should be taken into consideration before the start of ADT which leads into further loss of BMD

**Conclusions:** DXA should be advised to all patients before the initiation of ADT and thereafter every 12 months to detect patients at high-risk of skeletal morbidity. This enables early diagnosis of osteoporosis, its treatment and may reduce skeletal morbidity.

#### C90

##### Influence of the operative technique on the incidence of incidental prostatic carcinoma

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**Introduction and Objectives:** The aim of this study was to compare the incidence of incidental prostatic carcinoma in two hospitals in Croatia according to the procedure of choice, together with incidence and its clinical characteristics.

**Material and Methods:** The hospital medical records of all patients who have undergone prostatectomy for BPH in two hospitals, namely University Hospital Osijek and General Hospital Varazdin, in the period between January 2002 and December 2006 were reviewed. In 202 cases retropubic prostatectomy was performed and in 842 transurethral resection was done.

**Results:** The histopathology reports obtained from 1044 patients who presented with BPH were available. Incidental carcinoma was found in 71 specimens (representing 6.80% of all patients). The mean age was 70.6 years (44 to 90). Gleason score ranged between 3 and 6 with a mean value of 4.1. In 43 cases (60.56%) postoperative PSA values were stable and ranged between 0.0 to 0.5 ng/ml. In 28 cases after the postoperative rise in the PSA levels patients underwent bilateral orchiectomy and in 13 of those patients after the further rise in the PSA levels we decided to include flutamid in the therapy. Five of those