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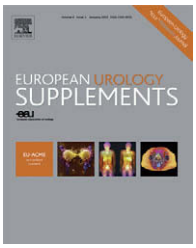

European Association of Urology

EAU 3rd North Eastern European Meeting (NEEM)

Poster Session 1: Prostate Cancer
Friday, 11 September 2009, 10:30–12:30
Poster room 1

N1
Audit of PSA and Gleason scoring in prostatic carcinoma

J.A. Al Shakarchi[1] *, D. Wasfi[2]. [1]*Russells Hall Hospital, Dept. of Urology, Birmingham, United Kingdom;* [2]*Russells Hall Hospital, Dept. of Pathology, Dudley, United Kingdom*

Introduction and Objectives: Every year in the United Kingdom, nearly 32,000 cases of prostate cancer are diagnosed and 10000 deaths are due to it. In a lot of cases, the first sign of the condition is an increase in PSA levels. The diagnosis of prostatic carcinoma is confirmed by histological investigations such as transurethral resection of the prostate (TURP) or on transrectal ultrasound guided needle biopsy. The grading system used for cancer of the prostate is the Gleason grading system (range: 1–5). The Gleason score is the sum of the Gleason grade assigned to the two most common architectural patterns found on biopsy. Therefore the lowest possible score is 2 and the highest being 10. The clinical significance of the score is due to its relation to the patient's survival and therefore is important in the decision making process for the treatment required. Thus the aim of our study was to evaluate the correlation between gleason grading score and PSA level.
Material and Methods: In this study, data was reviewed from patients who had a prostatic biopsy for a one-year period. The results were reviewed and only the cases with confirmed adenocarcinoma were selected. In total, 213 patients were included. For each patient, their PSA level prior to the biopsy was noted. Thereafter, an assessment of both PSA levels and histology results was undertaken.
Results: The vast majority of patients who were diagnosed with adenocarcinoma of the prostate had a PSA level between 5 and 50. As expected, there was also a pattern showing that the older the patient is the higher his PSA level is. More than half of the patients had a Gleason grading score of 6 and the peak age group was 70–80 years olds. Finally in the comparison between Gleason grading score and PSA level, there was a small positive correlation ($r = 0.33$, p-value <0.0001) between the two sets of results.
Conclusions: Our study showed that there is some discrepancy in the relation between PSA and gleason grading. Therefore we recommend clinicians to assess both sets of results separately.

N2
Variations in RNASEL, MSR1 and E-cadherin genes and prostate cancer in Poland

B.P. Gliniewicz[1] *, C. Cybulski[2], D. Wokołorczyk[2], A. Sikorski[3], J. Lubiński[2]. [1]*Pomeranian Academy of Medicine, Dept. of Urology, Szczecin, Poland;* [2]*Pomeranian Medical University, Dept. of Genetics and Pathology, Szczecin, Poland;* [3]*Pomeranian Medical University, Dept. of Urology, Szczecin, Poland*

Introduction and Objectives: In most developed countries, prostate cancer (PC) is the most frequently diagnosed malignancy in men. A positive family history is among the strongest epidemiological risk factors for prostate cancer. Linkage studies of PC families revealed numerous PC susceptibility chromosomal loci, but to date no major high-risk gene has been identified. Three genes, RNASEL, MSR1 and E-cadherin, have been previously implicated in PC pathogenesis. RNASEL (ribonuclease L), has been identified as a candidate PC susceptibility gene from a family-based approach in hereditary prostate cancer 1 (HPC1) locus. MSR1 (Macrophage Scavenger Receptor 1) is a gene within a region of linkage on chromosome 8p. The prevalence of five MSR1 common variants in PC cases of European- and African-American descent was reported to be higher compared with unaffected men. E-cadherin is the gene for early-onset familial gastric cancer. Polymorphisms in E-cadherin have been suggested to confer increased risk of PC. The most extensively studied variant, the −160C 1 A promoter polymorphisms, has been associated with increased PC risk in the Netherlands, Sweden and USA. To date, the roles of mutations in these genes in PC etiology in Slavic populations have not been investigated.
We investigated whether inherited variations in RNASEL, MSR1 and E-cadherin genes contribute to PC risk in Poland.
Material and Methods: 737 PC cases were collected from hospitals in Szczecin and surrounding counties. The mean age of diagnosis was 67.3 years (range 43–92). Family histories were obtained from each subject. 110 patients (15%) had one or more first- or second-degree relatives with PC (familial cases). The control group consisted of 511 unselected healthy men aged 50 and above, taken from three family doctors practicing in Szczecin. None of the controls had cancer.The polymorphisms in MSR1 and RNASEL were selected after sequencing of the entire coding region of these genes in 52 and 94 Polish men with familial PC, respectively. We also sequenced the entire coding sequence of E-cadherin gene in 89 individuals with diffuse gastric cancer. Five common DNA variants (R462Q and D541E in RNASEL, R293X and P275A in MSR1, and 2076C>T in E-cadherin) were found. These five variants and the −160C>A promoter change in E-cadherin were then genotyped in all PC cases and controls by restriction fragment length polymorphism polymerase chain reaction (RFLP-PCR). The frequencies of the DNA variants were compared in cases and controls. The ORs were used as estimates of relative risk.
Results: The frequencies of genotyped variants in MSR1, RNASEL and E-cadherin genes in cases and controls were similar. We did

not observed any association for the studied variants when cases were stratified by age of diagnosis, family history, PSA, Gleason score and tumor stage.
Conclusions: Inherited variation in RNASEL, MSR1 and E-cadherin genes do not seem to contribute to PC development in Poland.

N3
Pelvic floor muscles evaluation in patients with erectile dysfunction after radical prostatectomy

T.G. Markosyan*, V. Grigoryan, S.S. Nikitin. *Moscow Medical Academy, Dept. of Urology, Moscow, Russia*

Introduction and Objectives: Evaluate bulbocavernous and external anal sphincter muscles with needle EMG patients with neurogenic erectile dysfunction, 6–12 month after radical prostatectomy.
Material and Methods: The investigation of 14 patients with erectile dysfunction included vascular, hormonal, general and neurological examination, needle EMG analysis of pelvic floor muscles. In all patients MUPs mean amplitude and duration, muscle fibers spontaneous activity (FP and PSW) were evaluated.
Results: Motor and sensory deficit was revealed in 2 patients with herniated disc spondylotomy and 1 had spinal stroke; the rest 8 patients have no neurological disturbances. In 5 patients significant asymmetry of MUPs recruitment pattern and single-sided amplitude and duration decay accompanied by denervation activity (FP) was found. Spontaneous activity (FP and PSW) without sings of reinnervation was observed in 4 patients. In 6 patients moderate polyneuropathy with decreased limb and pudendal nerve conduction was found. In 1 patient the vegetative neuropathy was proved. In consideration of neurogenic dysfunction of pelvic floor muscles an additional active therapy was started. Erectile dysfunction symptoms (erection quality, rate of spontaneous erectile activity, sensitivity of external genitalia) were improved within 3–6 months.
Conclusions: Our results suggest the importance of pelvic floor muscles innervation status in patients with erectile dysfunction, from patients after RP. The pelvic floor muscles dysfunction should be considered an important component of erectile dysfunction pathogenesis and its improvement requires specific management.

N4
Phase II study of ketoconazole combined with weekly doxorubicin in patients with hormone-refractory prostate cancer

D. Argirovic[1]*, A. Argirovic[2]. [1]*Clinic of Urology, Outpatient Clinic Argirovic, Urology, Belgrade, Serbia;* [2]*CHC Zemun, Urology, Belgrade, Serbia*

Introduction and Objectives: Estramustine phosphate +/− vinblastine is and effective 1st line salvage treatment for hormone-refractory prostate cancer (HRPC). Nevertheless, the prognosis subsequent to progression after 1st line therapy is poor. We report the results with high doses of ketoconazole (KET) with hydrocortisone substitution and weekly doxorubicin (DOX). The principal end-point of the study was PSA response.
Material and Methods: The study comprised 40 patients (pts) with HRPC managed with KET 400 mg TID with remplacement hydrocortisone (30 mg) per os DOX 35 mg/ sqm/ weekly, until progression. The pts were monitored clinically and with PSA measurement every 3 months (m). The pts with NR/PD are referred to chemotherapeutical regimens (docetaxel+pronisone).
Results: The median age was 71.5 years (y)(range 45–79), ECOG performance status 1 (range 0–2). All pts had PSA progression, 36 (90%) had bone metastasis (painfull in 61% pts) and 16 (40%) had measurable soft tissue metastasis. All pts have undergone bilateral orchiectomy at 1st line hormonal therapy. The median interval from diagnosis to the development of HRPC was 22.3 m (range 2.5–205.7). At beginning of therapy, the mean PSA value was 56.5 ng/ml (range 4.5–1580). The median number of courses administrated was 7.5 (range 2–17). The median cumulative dose of DOX was 225 mg/sqm (range 50–600). The dose of KET was reduced IN 14 pts (35%). With a median follow-up of 19.5 months (m), 9 pts (22%) were alive with no progression. In 31 pts (78%), their ds had progressed and they died of their ds. The median overall survival (OS) time was 13.05 m (95% CI, 8.7–17.3%) and the median time to progression was 3.9 m (95% CI, 2.0–5.9%). The overall PSA response was 45% 995% CI, 26–62%), 6 pts (15%) had no response and in 16 (40%), the ds progressed. Of 16 pts with measurable ds, the overall response rate was 375 9955 CI, 8–15%), with 2 complete (12%) and 4 partial (29%) response. 4 pts (25%) had no change and 6 (41%) their ds progressed. Using the PSA decline >50% the median survival time for responders was 24 m compared to 9 m for non-responders (p = 0.0089). Toxicity was mild, with only 4 cases of non-hematologic grade 3 or 4 toxicity. The most frequent toxicity was nail changes (12), wich was mainly grade 1 (8).
Conclusions: The combination of weekly DOX and KET is and effective, well-tolerated,2nd line CT for HRPC acompained with mild toxicity. A PSA decrease >50% appears to represent significant marker in survival in group of pts with apparently refractory, but still hormone sensitive PC. PSA response to KET+DOX can be indentified within 1st 6–8 weeks of therapy allowing an early indentification of responders and non-responders. Responders wll benefit from continuation of therapy and non-responders might be recruited for salvage cytotoxic regimens at an early stage

N5
The use of CT in the staging of prostate cancer

M. Rohrsted[1]*, K.J. Mikines[2]. [1]*Rigshospitalet, Dept. of Urology, Copenhagen, Denmark;* [2]*Herlev Hospital, Dept. of Urology, Copenhagen, Denmark*

Introduction and Objectives: According to current guidelines, patients af Herlev Hospital, Denmark, with intermediate or high risk prostate cancer (PC), who may be candidates for curative treatment, undergo pelvic lymphadenectomy (PLA) in order to detect lymph node metastases. Prior to this, an abdominal CT is performed in order to spare the patients with positive lymph nodes on CT unnecessary invasive PLA.
Objective: To assess the usefulness of CT in the staging procedure of PC.
Material and Methods: All patients with PC who had an abdominal CT in 2008 were reviewed. Furthermore, all patients with PC, who had a radical prostatectomy (RP) with PLA and patients who underwent PLA prior to external beam radiation (EBR) or brachytherapy (BT) were reviewed. The two groups were crossed, and the results from PLA were correlated to the CT findings.
Results: 171 patients had PLA. There were no patients who had CT that did not undergo PLA. The prevalence of lymph node metastases after PLA was 22.2%. In the group of patients who had RP or were scheduled for BT (85 patients with generally localised PC), the prevalence was 9.9%. In the group scheduled for EBR (generally locally advanced PC), the prevalence was 35.7%. 5 patients (2.9%) had positive CTs, 3 true positive and 2 false positive. The sensitivity, specificity, positive predictive value and negative predictive value of CT was thus 7.9%, 98.5%, 60%and 78.9%. Fine needle aspiration biopsy (FNAB) was only performed in 1 of the cases of positive CTs, showing no metastases. In none of the cases in this study did CT result