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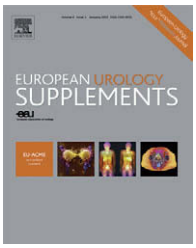

European Association of Urology

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

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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

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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