

THE CLINICAL SIGNIFICANCE OF LOWER URINARY TRACT SYMPTOMS IN PROSTATE CANCER

Hypothesis / aims of study

Lower urinary tract symptoms (LUTS) are reported in up to 30-50% of men over 50 years old, and prostate cancer (PC) is most common among the men. Therefore, we examined the correlations between LUTS and prostate cancer.

Study design, materials and methods

From January 2010 to December 2010, we investigated 167 patients performed transrectal ultrasound (TRUS)-guided biopsy of the prostate. The patients were divided into the group diagnosed with PC and the non-PC group, exception patients of showing pyuria on urinalysis. Prostate biopsy was performed on patients with PSA ≥ 4 ng/ml, or abnormal findings in the digital rectal examination (DRE) or TRUS. Prostate-specific antigen (PSA), prostate volume (PV) and International Prostate Symptom Score (IPSS) were performed before prostate biopsy. The IPSS was divided into obstructive symptom score and irritative symptom score, and LUTS was defined as IPSS ≥ 8 . The correlations between LUTS and PC were analyzed by logistic regression model.

Results

Mean age of patients was 66.64 ± 8.86 years, mean PSA was 13.93 ± 26.19 ng/ml, and mean PV was 38.89 ± 22.0 gm. Patients with taking α -blocker and 5 α -reductase inhibitor in each group were 29, 12 and 46, 22 respectively, but were not statistically significant. In a group diagnosed with PC, age, PSA and IPSS were higher, PV was smaller and presence of LUTS was more frequent than the non-PC group ($p=0.001-0.015$). In a logistic regression model, IPSS was not significantly associated with PC, but age, PSA, PV, irritative symptom score and presence of LUTS were significantly associated. Age ($p=0.003$, odds ratio=1.053), PSA ($p<0.001$, odds ratio=1.150), irritative symptom score ($p=0.008$, odds ratio=1.170) and presence of LUTS ($p=0.024$, odds ratio=1.098) were positively correlated to PC, while PV ($p=0.001$, odds ratio=0.949) was negatively correlated to PC.

Interpretation of results

LUTS in men with performed prostate biopsy is positively related to the risk of PC. We suggest that this is because of performing screening after development of symptoms.

Concluding message

To prevent delay in early diagnosis of PC, it is important to announce necessity of the prostate cancer screening before development of symptoms.

Disclosures

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