

PROSTATE VOLUME AND PROSTATITIS: EFFECTS ON LOWER URINARY TRACT SYMPTOMS

Hypothesis / aims of study

It is well known that many factors (increased prostate volume, body mass index, age, etc) influence on lower urinary tract symptoms (LUTS). However presence of prostatitis could be other also an aggravating factor to LUTS.

Therefore, we assessed the relationship between various known aggravating factors and severe LUTS in patients who had undergone transrectal ultrasonography (TRUS) guided prostate biopsy.

Study design, materials and methods

Between Jan. 2000 and May 2009, 1,066 male adults (47~91 years old) who took TRUS guided prostate biopsy, were retrospectively investigated. Severe LUTS was defined as IPSS \geq 20. We did correlation analysis between severe LUTS and variables (age, serum total PSA level, prostate volume, and presence of prostatitis). Univariate and multivariate analysis were processed to verify possible factors that aggravate LUTS.

Results

Mean age was 73.28 \pm 0.31years old, mean prostate volume was 41.77 \pm 0.64g and mean sPSA was 11.11 \pm 0.26ng/ml. On correlation analysis, prostate volume (correlation efficient, r: 0.256, p<0.001) and presence of prostatitis (r: 0.148, p<0.001) were significantly related. According to the presence of prostatitis, average IPSS was significantly different (20.37 \pm 7.80 vs 22.86 \pm 7.80, p<0.001). When we set the prostate volume lower than 20g as a reference level, odds ratios in the group with prostate volume more than 50g were 6.751 (50-60g), 10.012 (60-70g), 5.697 (>70g). On univariate and multivariate analysis, significant factors of severe LUTS were presence of prostatitis (OR: 1.945 (1.464–2.586), p<0.001), prostate volume (OR: 1.029 (1.022–1.037), p<0.001).

Interpretation of results

There is evidence of significant relationship between the severe LUTS and prostate volume & presence of prostatitis.

Concluding message

Presence of prostatitis is one of the considerable aggravating factor for severe LUTS.

References

1. Nickel JC et al, Eur Urol, 2008;54(6):1379-84
2. Karazanashvili G, Eur Urol, 2008;54(6):1383-4
3. Bernoulli et al, Prostate, 2008;68(12):1296-306

Specify source of funding or grant	None
Is this a clinical trial?	Yes
Is this study registered in a public clinical trials registry?	No
Is this a Randomised Controlled Trial (RCT)?	No
What were the subjects in the study?	HUMAN
Was this study approved by an ethics committee?	No
This study did not require ethics committee approval because	our study is a retrospective study. We just want to know the relationship between various known aggravating factors and severe LUTS in patients who had undergone TRUS guided prostate biopsy
Was the Declaration of Helsinki followed?	Yes
Was informed consent obtained from the patients?	Yes