

THE EFFECT OF PERIURETHRAL PROSTATIC CALCULI ON LOWER URINARY TRACT SYMPTOMS IN BENIGN PROSTATIC HYPERPLASIA

Hypothesis / aims of study

The aim of this study was to evaluate the effect of periurethral prostatic calculi on lower urinary tract symptoms (LUTS) at initial visit and after treatment with alpha-blocker in benign prostatic hyperplasia (BPH).

Study design, materials and methods

A total of 272 male patients with LUTS were studied. Group 1 consisted of 110 patients with periurethral prostatic calculi within 5mm from the prostatic urethra of transitional zone by transrectal ultrasound. Group 2 consisted of 162 patients without periurethral prostatic calculi within 5mm from the prostatic urethra. The mean age of Group 1 and Group 2 were 63.3±8.8 years and 61.1±8.4 years respectively ($p>0.05$). The International prostate symptom score (IPSS), maximal urinary flow rate (Qmax) and post voided residual urine (PVR) were measured in patients of both groups at the beginning of the study and 8 weeks after the treatment with doxazosin gastrointestinal therapeutic system (GITS) 4mg.

Results

Voiding, storage and total symptom score of IPSS in Group 1 were higher than Group 2 ($P<0.05$). Quality of life (QoL), Qmax, and PVR were not significantly different at the initial visit. After treatment with doxazosin GITS 4mg, improvement of voiding, storage and total IPSS in Group 2 were better than Group 1 ($p<0.05$). The improvement of QoL was 0.44±0.73 in group 1 and 1.13±0.82 in group 2 ($p<0.001$). The changes of Qmax were 1.02±1.40ml/sec in Group 1 and 1.52±1.84ml/sec in Group 2 ($p=0.035$). Changes of PVR were not significant between the two groups.

Interpretation of results

The periurethral prostatic calculi aggravated lower urinary tract symptoms and decreased the effect of alpha-blocker.

Concluding message

This study suggests that the periurethral prostatic calculi may aggravate lower urinary tract symptoms and decrease the effect of alpha-blocker.

<i>Specify source of funding or grant</i>	Nothing to declare
<i>Is this a clinical trial?</i>	Yes
<i>Is this study registered in a public clinical trials registry?</i>	No
<i>What were the subjects in the study?</i>	HUMAN
<i>Was this study approved by an ethics committee?</i>	Yes
<i>Specify Name of Ethics Committee</i>	Dongguk University Hospital IRB Committee
<i>Was the Declaration of Helsinki followed?</i>	Yes
<i>Was informed consent obtained from the patients?</i>	Yes