

MEDICAL TREATMENT OUTCOME OF MALE LOWER URINARY TRACT SYMPTOMS ON PATIENTS WITH PROSTATIC CALCULI

Hypothesis / aims of study

The aim of the study is to investigate whether the existence of prostate calculi on transrectal ultrasound could be a factor to predict the response to medical therapy.

Study design, materials and methods

A total of 120 male patients were enrolled in the survey of observational study for lower urinary tract symptoms (LUTS) treated by combination therapy with 4mg of Doxazosin XL and 4mg of Tolterodine ER once a day for 12 weeks. Existence of prostate calculi was documented by retrospectively reviewed transrectal ultrasonography. In addition to prostate calculi, another previous identified clinical parameters including age, peak flow rate (Qmax), total prostate volume (TPV), post-void residual (PVR), and serum prostate specific antigen (PSA) were analyzed. At the follow-up, responder was defined as international prostate symptom score (IPSS) decreased 25 % or greater or 2 points or greater than baseline (IPSS responder) and Qmax increased 30% or greater or 3ml per sec than baseline. The other variables for building model selected baseline factors, which were dichotomized using median cut points as total prostate volume (TPV), PSA, Qmax, PVR, and age.

Results

There were 51 consecutive patients receiving complete medical therapy and assessment included for analysis. Forty two (82.4%) patients had prostatic calculi. The IPSS improved from 19.23 to 12.17 ($p < 0.001$). Total prostate volume decreased from 42.38 g to 39.77 g ($p = 0.24$). PSA level decreased from 8.36 ng/ml to 2.30 ng/ml ($p = 0.25$). Peak flow rate improved from 11.66 ml/s to 13.93 ml/s ($p = 0.053$). Post-void residual urine improved from 97.33 ml to 93.37 ml ($p = 0.844$).

Interpretation of results

Prostatic calculi are common in patients with chronic pelvic pain syndrome and are associated with greater inflammation. Male LUTS are mainly related to prostate. After combination therapy, IPSS improved significantly and peak flow rate increased. It represented that prostatic calculi may cause storage and empty symptoms, and symptoms improved after treatment with standard medical therapy for prostate enlargement.

Concluding message

Combination therapy with 4mg of Doxazosin XL and 4mg of Tolterodine ER for LUTS related to prostatic calculi may significantly improve IPSS.

<i>Specify source of funding or grant</i>	Far Eastern Memorial Hospital
<i>Is this a clinical trial?</i>	Yes
<i>Is this study registered in a public clinical trials registry?</i>	Yes
<i>Specify Name of Public Registry, Registration Number</i>	099001-F
<i>Is this a Randomised Controlled Trial (RCT)?</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>	Ethics Committee of Far Eastern Memorial Hospital
<i>Was the Declaration of Helsinki followed?</i>	Yes
<i>Was informed consent obtained from the patients?</i>	Yes