

THE RISK FACTORS INCREASING POST VOID RESIDUAL URINE VOLUME AFTER LONG TERM MEDICATION OVER 1 YEAR IN PATIENTS WITH BENIGN PROSTATIC HYPERPLASIA COMBINED WITH OVERACTIVE BLADDER

Hypothesis / aims of study

Benign prostatic hyperplasia (BPH) patients usually accompanies overactive bladder (OAB) symptoms. Adding anticholinergics in these patients evokes us to worry about the deterioration of obstructive symptom and the possibility of acute urinary retention. We evaluated the risk factors increasing post void (PVR) residual urine volume in long term therapy over 1 year of alpha-blocker in patients with BPH and OAB.

Study design, materials and methods

We selected BPH patients treated with α -blockers, over 40 years, with international prostate symptom score (IPSS) of 8 or more, and 4th question of IPSS (urgency score) of 2 or more for OAB from 2005 to 2007. Selected 57 patients were evaluated by age, history of diabetes mellitus and central nervous system (CNS) disease, prostate volume, uroflowmetry, PVR volume, prostatic specific antigen (PSA), and IPSS retrospectively. All patients were subdivided into 2 groups respectively according to use or no use of anticholinergics and 5- α -reductase inhibitor. We evaluated risk factors increasing PVR volume in each group before and after treatment, and analyzed univariately and multivariately the mean value of the risk factors in 2 groups.

Results

The other risk factors except prostate volume in 2 groups subdivided according to use or no use of anticholinergics had no significant differences and the prostate volume and PSA before treatment, in 2 groups subdivided according to use or no use of 5- α -reductase inhibitor had the significant differences statistically. Age, diabetes mellitus, CNS disease, PSA, prostate volume, the use of anticholinergics and the no use of 5- α -reductase inhibitor which were regarded as risk factors increasing PVR volume, were analyzed for PVR volume more than 50ml respectively. Age over 65 years ($p=0.010$), CNS disease ($p=0.000$) and the use of anticholinergics ($p=0.000$) increased PVR volume more than 50ml significantly in univariate analysis. Age over 65 years, CNS disease and the use of anticholinergics were reanalyzed multivariately. The use of anticholinergics and CNS disease had the relative risk 13.9, 26.6 for increasing PVR volume more than 50ml respectively (Table).

Risk factors	p-value	Relative Risk Exp (B)	95%CI Exp(B)	
			Lower	Upper
age \geq 65years	0.073	16.9	0.8	371.8
CNS disease	0.018	26.6	1.8	398.5
anticholinergics: used	0.022	13.9	1.4	132.6

Interpretation of results

The long term therapy over 1 year of anticholinergics and past history of CNS disease are the risk factors increasing PVR urine volume in patients with BPH and OAB.

Concluding message

In old patients with BPH, OAB and CNS disease the anticholinergics have to be careful of the possibility of acute urinary retention.

References

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Is this study registered in a public clinical trials registry?	No
What were the subjects in the study?	HUMAN
Was this study approved by an ethics committee?	Yes
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Was the Declaration of Helsinki followed?	Yes
Was informed consent obtained from the patients?	No