

DO ALPHA-BLOCKERS REALLY SOLVE THE PROBLEM IN LUTS

Hypothesis / aims of study

The most commonly used treatment for male lower urinary tract symptoms (LUTS) are α 1-blockers. It is reported they provide nearly 30-40% reduction in IPSS scores and a 20-25% increase in Qmax values (1). In our study we assessed the amelioration rates for symptoms, urinary flow rates and post voiding residual urine amounts after alpha blocker treatment of patients applying due to LUTS.

Study design, materials and methods

Patients applying to our clinic due to LUTS from July 2015-March 2017 were included in the study. Within this duration the records of a total of 896 patients applying due to LUTS and with IPSS scores, uroflowmetry and PVR results were reached. Those with neurological problems causing symptoms were not included in the evaluation. A total of 118 patients with obstructive urination pattern on uroflowmetry who had not received treatment for LUTS previously were identified. Within this group, the results of 57 patients with pre and post treatment IPSS scores, uroflowmetry results and post voiding residual urine (PVR) amounts recorded were assessed. The IPSS forms of these patients were completed with the aid of personnel on duty. The PVR amounts were calculated by the same personnel with USI. The answers to all scores on the IPSS form were compared separately and in total. As the results did not abide by normal distribution, the Wilcoxon test was used for statistical analysis.

Results

The median scores for each question on IPSS before and after treatment, total median IPSS scores, PVR amounts, maximum flow rate (Qmax), average flow rate (Qave) on uroflowmetry and p values for each comparison are shown in the table. The results are given as median \pm ICR (min-max).

		Before treatment***	After treatment***	p
IPSS	1	1 \pm 2 (0-5)	0 \pm 1 (0-5)	0.011*
	2	2 \pm 2 (0-5)	1 \pm 1 (0-4)	0.001**
	3	2 \pm 4 (0-5)	1 \pm 3 (0-5)	0.008*
	4	2 \pm 3 (0-5)	1 \pm 5 (0-5)	<0.001**
	5	4 \pm 2 (0-5)	2 \pm 3 (0-5)	<0.001**
	6	0 \pm 2 (0-5)	0 \pm 1 (0-5)	0.121
	7	4 \pm 2 (1-5)	3 \pm 2 (0-5)	0.001**
	Total score	14 \pm 8 (2-32)	10 \pm 9 (1-31)	<0.001**
Uroflowmetry	Qmax	10 \pm 5.7 (4.1-22)	12 \pm 6.5 (4.5-22.7)	0.802
	Qave	4.4 \pm 2.7 (1.1-9.2)	4.8 \pm 2.3 (1.5-8.6)	0.442
	PVR	0 \pm 63 (0-366)	18 \pm 49 (0-292)	0.626

*** median \pm ICR (min –max)

Apart from the 6th question on the IPSS, a statistically significant reduction was identified for all scores. There was no significant reduction identified for uroflowmetry and PVR levels.

In our study, it appeared alpha blocker treatment ensured a significant reduction in total IPSS score. When the IPSS questions are separately assessed, a significant reduction was ensured apart from the 6th question. It appeared there was no significant amelioration in the complaint of difficulty beginning urination. In general, it appeared that better improvement was ensured for irritative complaints compared to obstructive complaints.

Interpretation of results

Though alpha blocker treatment ensured improvement of symptoms, the topic of improvement of urodynamic parameters is controversial. It is known that it does not reduce the risk of development of acute urinary retention (1). In our study there was no amelioration identified in terms of urinary flow rates and PVR amounts. When the available data are assessed though patients felt symptoms improved, it may be assessed that bladder obstruction continued. This process may negatively affect the bladder. As a result surgical choices may be considered earlier for some patients applying with LUTS. Comprehensive research should be completed to develop non-invasive tests to differentiate this patient group.

Concluding message

Though alpha blocker treatment may ensure a reduction in symptom scores in patients with obstructive urination pattern on uroflowmetry, there was no improvement found on uroflowmetry values and PVR amounts. To prevent irreversible injury caused to the bladder by high pressure especially, surgical treatment may be considered earlier for some patients.

References

1. EAU Guidelines 2016 Management Of Non-Neurogenic Male Lower Urinary Tract Symptoms (LUTS), Page 16

Disclosures

Funding: NONE **Clinical Trial:** Yes **Public Registry:** No **RCT:** No **Subjects:** HUMAN **Ethics not Req'd:** This is a retrospective study. The data in the study was obtained by screening patient files. **Helsinki:** Yes **Informed Consent:** Yes