

Intravesical Injection of Botulinum Toxin Type A in Patients with Refractory Overactive Bladder: What is new?

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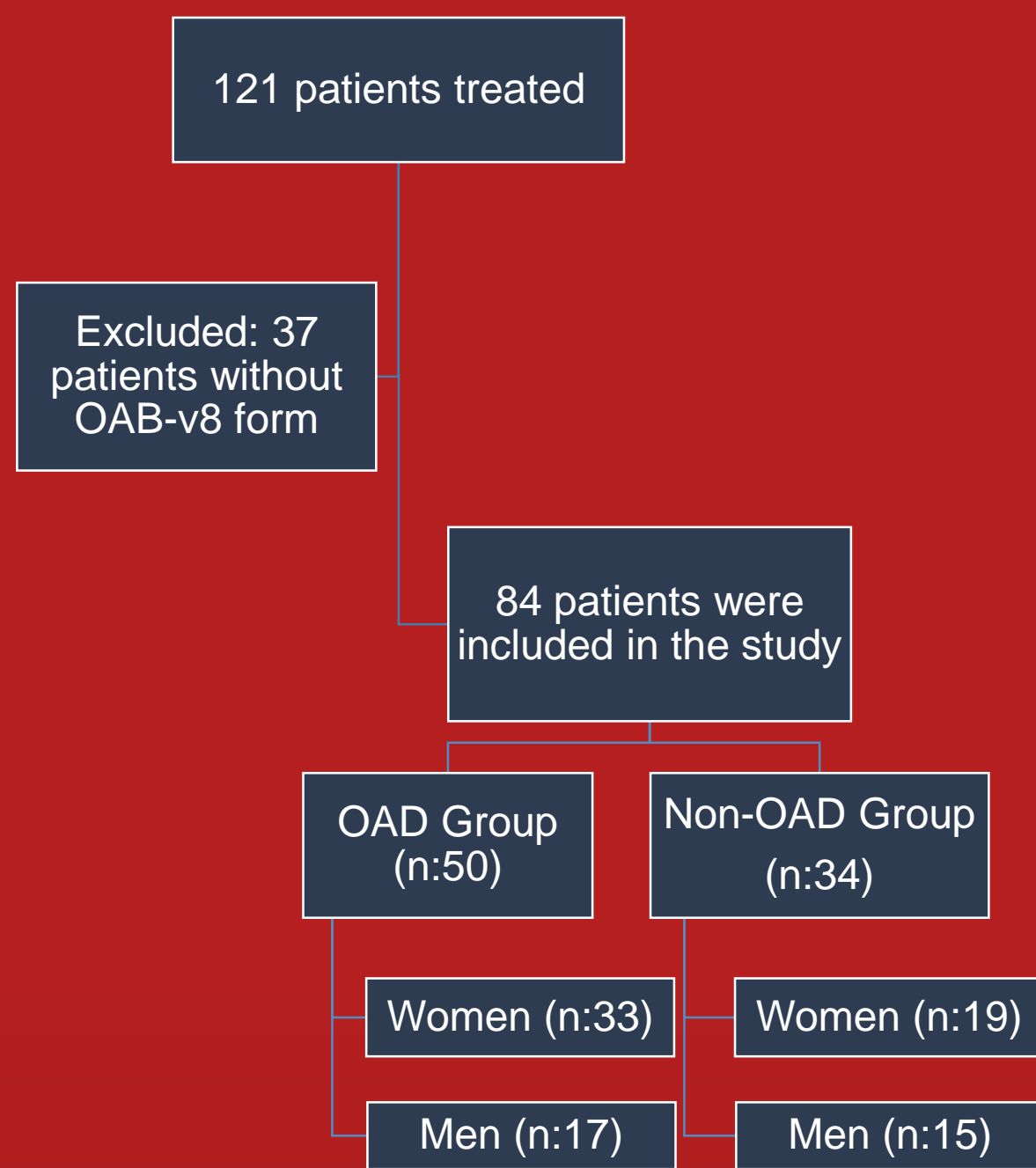
Introduction

Overactive bladder (OAB) is the name for a group of urinary symptoms. It is not a disease. The most common symptom is a sudden, uncontrolled need or urge to urinate (1). The physiologic basis of these symptoms is detrusor overactivity (DO), defined as spontaneous or provoked involuntary detrusor contractions. Possible side effects may include generalized weakness, dysphagia, diplopia, and blurred vision(2).

In this retrospective analysis, we aimed to evaluate the effect of intravesical botulinum toxin injection on the symptoms in OAB patients who had urodynamic detrusor overactivity with no response to medical therapy

Methodology

In this single-center retrospective analysis, all patients with refractory OAB who had urodynamic study treated with Onabotulinum toxin A (100UI) (Botox) were included. The linguistically validated Turkish version of OAB-V8 questionnaire and urodynamic study were completed in all patients who had refractory OAB before Botox injection to the bladder. OAB patients were divided into two groups including patients with overactive detrusor and patients without overactive detrusor with respect to urodynamic study. Patients were re-evaluated with OAB-V8 questionnaire at 12 weeks after Botox injection. Mann-Whitney U, Wilcoxon Signed Rank and Chi-square tests were used in statistical analyses. A p-value<0.05 was considered statistically significant.



Urodynamic Results		Pre-Botox OAB-V8 Score	Post-Botox OAB-V8 Score	Postoperative OAB-V8 Score Change (%)	
OAD	Women	N	33	33	
		Median	31	8	-72,2
		Minimum	6	0	-100
		Maximum	40	37	6,8
		Percentiles	25	27	2
		75	36	17	-40,7
	Men	N	17	17	
		Median	30	21	-38
		Minimum	15	3	-92,8
		Maximum	42	36	3,3
Percentiles		25	22,5	6	-71,4
	75	38,5	31	-10	
Non-OAD	Women	N	19	19	
		Median	30	11	-53,85
		Minimum	12	1	-95,24
		Maximum	45	36	0
		Percentiles	25	23	6
		75	38	23	-31,11
	Men	N	15	15	
		Median	25	7	-35,71
		Minimum	2	1	-96,15
		Maximum	41	23	0
Percentiles		25	19	5	-76,47
	75	28	18	-21,05	

Results

Eighty four patients (52 women and 32 men) were included. Mean age was 48.9 years. The mean score of OAB-V8 was 13.52 (0-37) after Botox injection while it was 28.9 (2-45) before Botox injection. There was no difference between men and women for OAB score regarding Botox injection (OAB score in men; 26.97 to 15.42, OAB score in women ; 30.06 to 12.42). However, the decrease of OAB-V8 symptom score after Botox injection in women with overactive detrusor (OAD) was statistically significant compared to men with overactive detrusor (72% vs 38%, p<0.05). On the other hand, there was no difference for the result of Botox injection between patients with OAD and patients without OAD. No difference was observed for the effect of urodynamic parameters on OAB score regarding the response of Botox injection.

Conclusion

The treatment of Botulinum toxin injection for OAB is well known therapy for a while. However, the effect of urodynamics on the outcome of intradetrusor Botox injections is not clarified in patients with symptoms of OAB. In this study, the decrease of OAB symptom score was significantly better in women with OAD than men with OAD. Hormonal factors or any other things could be a reason for this result that needs to be clarified in future studies.

Concluding message

Botulinum toxin significantly decreased OAB-V8 symptom score in patients with OAB. The response rate of Botox treatment in women with OAD is much better than in men with OAD. Urodynamic parameters was not significantly correlated with OAB symptom score related to Botox treatment. However, to have a comment regarding the effect of urodynamic parameters on OAB symptom score is controversial as regards limited number of this study.

Acknowledgements

References:

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