

# UAB or BOO ? Same Anamnesis, Different Therapeutic Results



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## Abstract

**Introduction.** Obstructive urinary tract symptoms of the male are quite common, although their understanding and the approach towards them is in a continuous evolution in the last decades. Depending on the condition behind the symptoms, the results of the treatment may be very different. We present a single center experience focused on treatment outcomes.

**Material and Methods.** We designed a retrospective study, aiming to review the experience of our urology department with male patients with bladder outlet obstruction (BOO) and underactive bladder syndrome (UAB) with no known neurological conditions, in the last three years, from a therapeutic perspective. Our analysis included only patients where follow up information at one year or longer was available. As per our standard of care, all patients underwent ultrasonography of the urinary tract, pressure-flow study and cystoscopy as part of the evaluation protocol. Patients were divided into two groups, BOO and UAB and the therapeutic outcomes were analyzed using the t-test statistics, comparing initial and follow up Qmax, IPSS, PVR.

**Results.** A total of 177 male patients were included, 128 in the BOO group and 49 in the UAB group, aged 43 to 79 years old (mean age 70.1±7.4) at the moment of the initial evaluation. Our patients were treated with self-catheterization, alpha blockers or TURP. Three patients received botulinum toxin injections for the urinary sphincter. Statistically significant results were obtained only in the TURP and  $\alpha$  blockers treatment groups, while in the CIC group only the QoL (IPSS) could be compared and led to a statistically significant improvement. Alpha blockers showed only marginal overall improvement in the UAB group. TURP led to a worse outcome in the UAB group compared to BOO, but the results are still good when compared to other treatments.

**Discussion.** The terminology around UAB was redefined several times, and this might bring a bias in a retrospective study. Pure detrusor underactivity (DUA) is defined as slow stream, hesitancy and straining to void in the absence of any BOO. After reviewing our data we consider that pure DUA is a debatable term, as some degree of obstruction was noted in all our cases. BOO might become a cause for DUA.

**Conclusion.** Although UAB and BOO symptoms have a significant overlapping and the differential diagnosis might be challenging, the treatment outcomes are very different in the two groups, and the patient must be properly counseled based on his particular condition. CIC improves the QoL reported by both groups of patients. In our group we noticed a high tendency to recommend surgery in the UAB group, although the results are worse than in the BOO group. In UAB patients,  $\alpha$ -blockers offer marginal improvement of symptoms. TURP remains a good option for UAB patients in which less invasive treatment did not work. Long term efficacy of TURP is not clear yet.

## Introduction

- ❑ Obstructive urinary tract symptoms of the male are quite common, although their understanding and the approach towards them is changing.
- ❑ Depending on the condition behind the symptoms, the results of the treatment may be very different.
- ❑ We present a single center experience focused on treatment outcomes.

## Methods and Materials

- Retrospective study, pts. with UAB and BOO.
- No neurological condition
- Follow up for one year or longer
- Standard of care evaluation protocol.
- T test statistics of the main parameters.

## Results

- ❖ 177 male patients were included, 128 in the BOO group and 49 in the UAB group
- ❖ Age 43 to 79 years old (mean age 70.1±7.4)
- ❖ Our patients were treated with self-catheterization, alpha blockers or TURP.
- ❖ Three patients received botulinum toxin injections for the urinary sphincter.
- ❖ Statistically significant results were obtained only in the TURP and  $\alpha$  blockers treatment groups
- ❖ In the CIC group only the QoL (IPSS) could be compared and led to a statistically significant improvement.
- ❖ Alpha blockers showed only marginal overall improvement in the UAB group.
- ❖ TURP led to a worse outcome in the UAB group compared to BOO, but the results are still good when compared to other treatments.

## Discussion

- The terminology around UAB was redefined several times, and this might bring a bias in a retrospective study.
- Pure detrusor underactivity (DUA) is defined as slow stream, hesitancy and straining to void in the absence of any BOO.
- After reviewing our data we consider that pure DUA is a debatable term, as some degree of obstruction was noted in all our cases.
- BOO might become a cause for DUA.

## Conclusions

- ✓ CIC improves the QoL reported by both groups of patients
- ✓ In UAB patients,  $\alpha$ -blockers offer marginal improvement of symptoms
- ✓ TURP remains a good option for UAB patients in which less invasive treatment did not work.
- ✓ In our group we noticed a high tendency to recommend surgery in the UAB group, although long term efficacy of TURP is not clear yet for this indication.
- ✓ The treatment outcomes are very different in the two groups, and the patient must be properly counseled based on his particular condition
- ✓ Differential diagnosis might be challenging.

Table 1. Treatment Outcomes in the TURP group.

	UAB pre TURP	UAB after TURP	BOO pre TURP	BOO after TURP
IPSS (total)	21.18±7.88	14.78±7.44	20.16±8.78	9.12±9.51
QoL (total)	4.51±1.12	4.11±0.99	4.23±1.61	2.64±1.44
PVR	127.23±48.88	108±51.47	61.23±28.77	31.13±7.87
Q max	9.13±4.81	12.47±5.67	10.37±3.13	16.88±7.67

	UAB pre TURP	UAB after TURP	BOO pre TURP	BOO after TURP
IPSS (total)	18.67±6.43	16.53±7.37	17.71±7.58	8.12±6.71
QoL (total)	4.51±2.23	4.33±1.19	5.45±1.61	3.67±1.33
PVR	89.63±37.18	93.03±46.38	49.67±33.17	27.53±8.13
Q max	11.47±3.55	12.91±5.16	13.57±4.53	15.78±7.43

Table 2. Treatment Outcomes in the  $\alpha$ -blockers group.

- Chapple CR, Osman NI, Birder L, van Koeveeringe GA, Oelke M, Nitti VW, et al. The underactive bladder: a new clinical concept? Eur Urol 2015;68(3):351-3.
- Green J, Pannek J, Castro Diaz D, Del Popolo G, Gross T, Hamid R, et al. Summary of European association of urology (EAU) guidelines on neuro-urology. Eur Urol 2016;69(2):324-33
- Lecamwasam HS, Yalla SV, Cravalho EG, Sullivan MP. The maximum watts factor as a measure of detrusor contractility independent of outlet resistance. Neurourol Urodyn 1998;17(6):621-35
- Kuo HC. Recovery of detrusor function after urethral Botulinum A toxin injection in patients with idiopathic low detrusor contractility and voiding dysfunction. Urology 2007;69(1):57-61. discussion-2
- Djavan B, Madersbacher S, Klingler C, Marberger M. Urodynamic assessment of patients with acute urinary retention: is treatment failure after prostatectomy predictable? J Urol 1997;158(5):1829-33
- Palleschi G, Pastore AL, Ripoli A, Silvestri L, Petrozza V, Carbone A. Videourodynamic evaluation of intracorporeally reconstructed orthotopic U-shaped ileal neobladders. Urology 2015;85(4):883-9.