

## PREDICTING OVERACTIVE BLADDER AFTER TUR-PROSTATE: CLINICAL PRAVALENCE OF PRE- AND POSTOPERATIVE COMBINED URODYNAMICS IN PATIENTS WITH BLADDER OUTLET OBSTRUCTION

### Hypothesis / aims of study

Prostate hyperplasia is often observed in elderly men. Nevertheless, a lot of BPH-patients develop the typical symptom complex of bladder outlet obstruction (BOO) and overactive bladder (OAB). Besides removing the obstructive component, approximately 30% of TUR patients still suffer of OAB symptoms. The aim of this study was to evaluate the ability to make prediction for OAB in BOO patients by urodynamical examination.

### Study design, materials and methods

In a prospective study, 103 patients with clinical diagnosed BOO were evaluated (Mean age: 69,7 ± 8,2 years). All these patients were planned for TUR-Prostate.

Patient's symptoms were also quantified by anamnesis, IPSS and LQI.

Sonography was performed in all patients. Mean prostate volume was 50.9 ± 22,8 ml. Urethral strictures were outruled by cystoscopy.

Every patient received a combined urodynamic examination 24 h before TUR. The surgeon did not know the results, so there was no influence in resection technique.

Patients approval is to be on hand.

Evaluation of urodynamical results was performed by ICS nomograms.

A follow up including combined urodynamical examination was done 3 month postoperatively.

### Results

8/103 (7,8%) patents did not appear to the follow up. 4/103 (3,9%) were excluded by a T1 prostate cancer in histology. (12/103 = 91)

Major symptoms in all 103 patients were increased daytime frequency (90,3%), nocturia (79,4%), slow strain (83,5%) and urgency (49,2%).

Further results are presented in table 1.

	preoperative	postoperative
IPSS	14,7 ± 8	5,9 ± 5,8 (**)
Life quality index (LQI)	3,0 ± 1,3	1,5 ± 1,6 (**)
Maximum cystometric capacity	422,9 ± 173,5	382,3 ± 126,0
Post void residual	202,8 ± 190,3	67,9 ± 92,1 (*)
Micturition volume	220,1 ± 170,5	314,4 ± 154,8
Flow max	9,5 ± 4,2	17,5 ± 6,3 (**)
Pdet Flow max	70,8 ± 31,5	38,3 ± 16,3 (**)
Micturition time	56,7 ± 24,5	40,9 ± 24,2 (*)
Schäfer nomogram	3,88 ± 1,58	2,1 ± 1,3 (*)

\*: p<0,05; \*\*: p<0,001

Persistence of OAB symptoms was observed mildly in 68,2%, severe in 27,0% and very severe in 4,8%. 27% of the treated patients were unsatisfied.

### Interpretation of results

TUR-Prostate is the gold standard in patients with bladder outlet obstruction.

Despite this well known dogma, almost 30 % (27/91) of our patients were still unsatisfied. This was mainly caused by persistent detrusor overactivity which was partly caused by neurogenic detrusor overactivity (16/91; 17,6%) and idiopathic detrusor overactivity (26/91; 28,6%). The ICS nomograms showed significant improvement, but were weaker in the patient group with persistent detrusor overactivity.

We could differentiate 4 different types of detrusor overactivity. All these 4 patterns had different postoperative outcome.

This is the first study for evaluating prediction ability by urodynamics.

### Concluding message

It seems that preoperative urodynamical examination has the ability to predict the postoperative outcome. 4 different patterns of detrusor overactivity were identified with individual success rates.

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<b>Is this a clinical trial?</b>	No
<b>What were the subjects in the study?</b>	HUMAN
<b>Was this study approved by an ethics committee?</b>	Yes
<b>Specify Name of Ethics Committee</b>	Ethics committee of university of saarland
<b>Was the Declaration of Helsinki followed?</b>	Yes
<b>Was informed consent obtained from the patients?</b>	Yes