

## TRANS-OBTURATOR TAPE OUTSIDE-IN AND INSIDE-OUT: A COMPARISON OF THE SPHINCTERIC AND MICTURITION FUNCTION BEFORE AND AFTER SURGERY USING URODYNAMIC EVALUATION

### Hypothesis, aim of the study

To compare the sphincteric and micturition functions before and after surgical treatment of urinary incontinence using the outside-in and the inside-out trans-obturator technique.

### Study design, material and methods

44 women suffering from pure and mixed urinary incontinence were operated by the transobturator tape outside-in (TOT) (group 1 : 17 women, 63± 12 years) and the transvaginal tape-obturator inside-out (TVT-O) (group 2: 27 women, 63 ±11 years) techniques. Urethral sphincteric function was evaluated with a urethral pressure profile at rest and at stress in the supine and standing positions and micturition function with a free and an instrumented voiding flowmetry. This urodynamic examination was carried on before the operation and 29 ±8 months for group 1 and 16 ±5 months for group 2 after the operation. Urodynamic parameters were compared in the same group and in the two groups using Student T test paired and unpaired, and confirmed by non-parametric test (Mann-Whitney and Wilcoxon) .

### Results:

Urodynamic parameters were similar in both groups before operation.

Compared before and after the operation :

Functional urethral length(FUL) in the supine position increases significantly in gr 2 women compared to group 1 women.

Maximal urethral closure pressure at rest ( MUCP) in the supine and in the standing positions show no significant differences when compared before and after the operation and also between both groups after operation.

However, MUCP at stress show significant increase in gr 2 women only in supine position and not in the standing position.

Pressure transmission ratio ( PTR) measured in the 30 %, 50% and 70 % of FUL show a significant increase in gr 2 women compared to gr 1 women, thus only when measured at 50 % of the FUL in the supine and the standing positions.

Area of continence at rest show a significant increase in gr 2 compared to group 1, in the standing position only.

Area of continence at stress show a significant increase in gr 2 compared to gr 1 in the supine and in the standing positions.

Micturition parameters show, in both groups, a similar significant decrease of peak flow whereas detrusor contraction force during micturition show no significant differences before and after operation and when compared in both groups.

### Interpretation of results

Assessed before and after operation, gr 2 women operated by the inside-out technique have a significant increase of most part of her sphincteric function parameters when compared to women operated by the outside-in technique.

### Concluding message

These findings can perhaps be explained by a less extensive dissection of the sub-urethral region with the inside-out TVT-O technique compared to the outside-in technique.

<b>Specify source of funding or grant</b>	<b>none</b>
<b>Is this a clinical trial?</b>	<b>Yes</b>
<b>Is this study registered in a public clinical trials registry?</b>	<b>No</b>
<b>What were the subjects in the study?</b>	<b>HUMAN</b>
<b>Was this study approved by an ethics committee?</b>	<b>No</b>
<b>This study did not require ethics committee approval because</b>	<b>women gave her informed consent for a second control with a urodynamic evaluation after her operation</b>
<b>Was the Declaration of Helsinki followed?</b>	<b>Yes</b>
<b>Was informed consent obtained from the patients?</b>	<b>Yes</b>