

Prospective evaluation of anxiety and depression in females with stress urinary incontinence undergoing transobturator tape surgery

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Hypothesis / aims of study

Women presenting with stress urinary incontinence often suffer from associated psychiatric disorders, such as depression or anxiety. Nevertheless the interdependencies remain unclear. Our hypothesis was that psychological morbidity might as well be influenced by tension-free transobturator tape surgery as stress urinary incontinence itself.

- We aimed to answer the following questions:
- How effectively does a transobturator tape treat stress urinary incontinence?
- Does a transobturator tape influence depression and/or anxiety in these women?
- Is there an association between improvement of urinary incontinence and change in psychological parameters?

Study design, materials and methods

A prospective, single-center observational study was conducted. 152 consecutive women with a tension-free transobturator tape procedure for stress urinary incontinence or mixed urinary incontinence with stress incontinence being the predominant factor were included.

Urinary incontinence was measured counting the number of sanitary pads per day before and after the operation. Women with 0 or 1 pad after surgery were regarded as “continent”. A reduction by at least 50% was regarded as “improvement”, all others were classified as “not improved”.

Psychometry was done using the Hospital Anxiety and Depression Scale (HADS), a widely spread, validated instrument. For comparison, standard values for the age-matched female general population were calculated using a non-linear mathematical model available in the published literature. [1]

Data was achieved preoperatively during the in-house examinations. Postoperatively, patients were also contacted via telephone or mail.

Results

Table 1: Urinary continence at a median of 307 days after surgery (IQR 153-411 days)

	n=152 (100,0%)
Continent	109 (71,7%)
Improved	9 (5,9%)
Not improved	34 (22,4%)

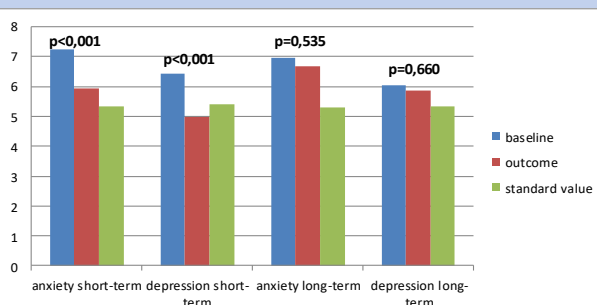


Figure 1: HADS-values (axis of ordinates) before and after surgery. (p-values were calculated for the difference between outcome and baseline using paired t-test)

Table 2: Difference of HADS-values before and after surgery in relation to postoperative urinary incontinence (*: Kruskal-Wallis-test)

	Continent n=105 (71,4%)	Improved n=9 (6,1%)	Not improved n=33 (22,4%)	p*	
Short-term (median 120 days)	Difference anxiety	-1,63 (4,08)	-2,78 (3,77)	+0,12 (4,49)	0,057
	Difference depression	-2,10 (3,89)	-2,11 (3,62)	+0,76 (4,73)	0,004
Long-term (median 1329 days)	Continent n=75 (75,0%)	Improved n=7 (7,0%)	Not improved n=18 (18,0%)	p*	
	Difference anxiety	-0,83 (3,97)	+1,14 (5,01)	+1,56 (4,30)	0,084
Difference depression	-0,69 (4,21)	-0,86 (4,56)	+2,17 (4,06)	0,037	

Interpretation of results

The present study confirms the efficacy of transobturator tape implantation in a non-selected population. Besides urinary incontinence, the surgery also improves depression and anxiety values significantly in short-term (after median 120 days). In long-term (after median 1329 days) this effect was no longer statistically significant.

Improvement of urinary incontinence and improvement in depression are statistically correlated.

For anxiety, the data shows a strong trend in this direction, though not statistically significant.

Concluding message

Women undergoing tension free transobturator tape for (predominant) stress urinary incontinence can expect an improvement in psychological comorbidity such as anxiety and depression.

[1] Hinz A, Brähler E. Normative values for the Hospital Anxiety and Depression Scale (HADS) in the general German population. Journal of Psychosomatic Research 2011; 71: 74–78