

## STILL URINARY INCONTINENT AFTER MID-URETHRAL SLING OPERATION – WHAT’S THE IMPACT?

### Hypothesis / aims of study

Mid-urethral slings have become standard surgical methods to treat stress urinary incontinence (SUI). However, little is known about the situation of women who still have urinary incontinence (UI) after surgery. Our study assesses and compares the patient-reported outcome 12 months after tension-free vaginal tape (TVT), tension-free vaginal tape-obturator (TVT-O), and transobturator tape (TOT) with a particular focus on women who still have urinary leakage postoperatively.

### Study design, materials and methods

Preoperative and 12 months postoperative data from 3334 women operated with TVT (n=2059), TVT-O (n=797), and TOT (n=478) registered in the Swedish National Quality Register for Gynecological Surgery (Gynop register) were analyzed. Between January 2006 and April 2010, 39 of 57 departments performing surgery for urinary incontinence in Sweden reported data to the Gynop register. Exclusion criteria were fecal incontinence, incontinence surgery combined with other gynecological operation, neurological disease, and other severe systemic diseases classified as grade III (=severe systemic disease) according to The American Society of Anesthesiologists Physical Status Classification System (ASA). A woman was defined as having UI after surgery if she reported urinary leakage 1-3 times a month or more at the 12 months follow-up.

### Results

In total, 29% of the women (n=977) still had some form of urinary leakage at the 12 months follow-up. The distribution of postoperative leakage in relation to operation type was 27% for TVT, 34% for TVT-O, and 33% for TOT. After binary logistic regression analysis adjusting for baseline differences between the operation groups, the odds was higher to become continent after TVT compared with TOT (p=0.032) was found. The chance to become “very satisfied” with the result of the operation decreased with increasing age (p<0.001), higher BMI (p<0.001), and if the woman preoperatively reported urinary leakage in combination with urgency once a day or more (p=0.008).

Among the postoperatively incontinent women who had expressed a negative impact of UI on family, social, working, and sexual life preoperatively, considerably fewer reported a negative impact in all these domains after surgery (p<0.001, respectively). A significant decrease in the amount of leakage and the number of episodes of both SUI and urge incontinence (UUI) was also found (Table 1). In the postoperatively incontinent group 41% had coital incontinence preoperatively, 63% of them reported a cure of coital incontinence at follow-up. In total, 56% of the women with any urinary leakage postoperatively were “satisfied” or “very satisfied” with the result of surgery at one year follow-up be compared with 98% in the group with no remaining urinary leakage.

### Interpretation of results

The proportion of women who were “very satisfied” with the result of the operation did not differ between the three operation groups. However, TVT had a higher success rate curing SUI than TOT. Despite urinary leakage one year postoperatively, half of the women were satisfied with the result of the operation.

### Concluding message

This study highlights the fact that women with risk factors such as higher age, higher BMI, or a history of urinary leakage in combination with urgency can benefit from incontinence surgery. The challenge for the health care professionals is to inform adequately the patients about what surgery can accomplish in order to give realistic expectations.

### Disclosures

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Mats Löfgren is chairman of The Swedish National Register for Gynecological Surgery. **Clinical Trial:** No **Subjects:** HUMAN **Ethics Committee:** The Regional Ethics Review Board in Umeå, Sweden **Helsinki:** Yes **Informed Consent:** No

	Pre-op <sup>a</sup>	Post-op <sup>a</sup>	p-values
SUI - frequency			
Never	9 (1%)	228 (25%)	<0.001
1-4 /month	38 (4%)	236 (26%)	
1-6 /week	137 (15%)	156 (17%)	
1/day	112 (12%)	107 (12%)	
>1/day	645 (68%)	180 (20%)	
UUI - frequency			
Never	91 (10%)	96 (10%)	<0.001
1-4 /month	179 (19%)	291 (31%)	
1-6 /week	177 (19%)	232 (25%)	
1/day	155 (16%)	117 (12%)	

>1/day	339 (36%)	210 (22%)	
SUI - amount of leakage			
None	7 (1%)	210 (24%)	
Moist underwear	218 (23%)	402 (45%)	<0.001
Wet underwear	334 (36%)	188 (21%)	
Passes through clothes	246 (27%)	59 (7%)	
Running down the legs	117 (13%)	31 (3%)	
UUI - amount of leakage			
None	68 (7%)	85 (9%)	<0.001
Moist underwear	285 (32%)	424 (46%)	
Wet underwear	303 (34%)	273 (30%)	
Passes through clothes	138 (15%)	57 (6%)	
Running down the legs	109 (12%)	77 (9%)	

<sup>a</sup> Some women did not answer all the questions, so the number of responses varies  
SUI = stress urinary incontinence, UUI = urge urinary incontinence

**Table 1** Frequency and amount of urinary leakage preoperatively and 12 months post-operatively in women who still have urinary incontinence after surgical treatment with TVT, TVT-O, or TOT (n=977)