

## MANAGEMENT OF STRESS URINARY INCONTINENCE AFTER URETHROVAGINAL FISTULA REPAIR

### Hypothesis / aims of study

Urethrovaginal fistulae (UVF) are a rare condition that can be successfully managed via vaginal surgery [1]. About 50% of patients after UVF repair develop stress urinary incontinence (SUI) symptoms requiring anti-incontinence procedures [2]. Pubovaginal slings are traditionally considered as an appropriate option for managing SUI in these cases. We analyze our experience and long term follow up after urethrovaginal fistula repair and efficacy of tension free tapes for these patients.

### Study design, materials and methods

In this study we evaluate the long-term results of vesicovaginal fistula closure in 21 patients operated in our clinic. The causes of fistula are shown in the table below.

Causes of urethrovaginal fistulae	Number of patients (21)	
	Obstetric trauma	7
Periurethral cyst removal	8	38,1%
Colprorrhaphy	1	4,8%
Synthetic slings	3	14,3%
Cryoablation of urethral polyp	2	9,5%

Transvaginal fistula repair was done in all cases. Successful closure of the fistula was achieved in 90.47% of cases after primary repair. Two patients underwent secondary fistula closure, which was successful in all cases. In postoperative periods, 52.3% of the patients (11/21) developed stress urinary incontinence. Mean timing for anti-incontinence procedure after successful fistula repair was 18,4 weeks. These patients were operated on using autologous retropubic sling (1 pt.), retropubic (7pts.) or obturator tension-free synthetic sling (3 pts.) procedures. An average follow up time after surgery was  $47.5 \pm 10.9$  months.

### Results

An evaluation of the effectiveness of anti-incontinence procedures among those 10 patients who were treated with synthetic slings revealed that seven women (70%) were objectively cured. This means that these patients had a negative cough test with 150 ml normal saline in the bladder. Two patients (20%) expressed satisfaction with anti-incontinence surgery, though the cough test was positive. And 2 patients remained incontinent (20%) after TVT procedure. Eighth patients from 10 considered themselves cured or significantly improved in the term of urinary incontinence (80%). No fistula recurrence was found in these patients after implantation of synthetic slings in the long term follow up within almost 4 years (47,5 months).

### Interpretation of results

Our data shows that 52.3% of patients with UVF develop SUI symptoms after successful fistula closure. We believe that synthetic sling placement, which can be done with minimal periurethral mobilization, opens new horizons for proper continence restoration in this group of patients. If the full-thickness urethral wall has been used with no tissue tension for fistula closure, tension-free synthetic tape may be considered as an anti-incontinence procedure for these patients. Otherwise, we believe that slings for the correction of subsequent stress incontinence offer good functional results with fewer complications.

### Concluding message

Almost half of the patients develop stress urinary incontinence after successful urethrovaginal fistula repair. Tension free vaginal tapes as well as pubovaginal slings could be a treatment option for these patients.

### References

1. Pushkar DY, Dyakov VV, Kosko JW, Kasyan GR. Management of urethrovaginal fistulae. Eur Urol 2006; 50:1000–1005
2. Reisenauer C, Wallwiener D, Stenzl A, et al. Urethrovaginal fistula: a rare complication after the placement of a suburethral sling (IVS). Int Urogynecol J 2007; 18:343–346

<b>Specify source of funding or grant</b>	<b>Nothing to disclose</b>
<b>Is this a clinical trial?</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>All materials and surgical procedures are approved by health authorities</b>
<b>Was the Declaration of Helsinki followed?</b>	<b>Yes</b>
<b>Was informed consent obtained from the patients?</b>	<b>Yes</b>