

OUTCOMES OF CONTINENCE SURGERY IN WOMEN WITH URODYNAMIC STUDY (UDS)-PROVEN DETRUSOR OVERACTIVITY AND STRESS URINARY INCONTINENCE (SUI)

Hypothesis / aims of study

Women with mixed urinary incontinence compared to those with stress urinary incontinence only have less good outcomes following continence surgery due to the possible aggravation of overactive bladder (OAB) symptoms. The aim of our study was to identify the women in our institution who had UDS-proven detrusor activity and SUI, and their outcomes after colposuspension or mid-urethral sling surgery.

Study design, materials and methods

The pre-operative UDS traces on 196 women who underwent anti-stress incontinence surgery between May 2001 and March 2008 were retrospectively reviewed by 2 of the authors. Patients whose UDS showed detrusor overactivity during filling phase, identified independently by the 2 reviewers, were included in our study. Patients were reviewed 6 weeks after surgery and had longer follow-ups if they had problems. Surgical outcomes were based on King's health questionnaire, UDI-6 symptom scores and history taking.

Results

Twenty-four women (12%) had UDS-proven detrusor overactivity. Seven women had colposuspensions and 17 had mid-urethral sling surgery (15 TOT, 1 TVT, 1 fascial "sling-on-a string"). One patient who had a TOT did not return for follow-up and could not be contacted leaving 23 patients in this study. Table 1 shows the range in patients' age and detrusor pressure rise during involuntary contraction on UDS.

Operation	No	Age range/years (mean)	Pdet cm/H ₂ O (mean)
Colposuspension	7	36-73 (54.6)	13-40 (24.7)
Mid-urethral sling	16	33-78 (52.8)	9-40 (22.9)

Table 2 shows the usage of anti-cholinergic medication and the need for additional surgical procedures following continence surgery

	Pre-op use of anti-cholinergics	Post-op use of anti-cholinergics	# of patients needing additional procedures
Colposuspension	100%	85%	0
Mid-urethral sling	75%	75%	6

Table 3 lists the additional procedures following mid-urethral sling surgery because of severe urge incontinence *not* controlled with anti-cholinergic medication.

Procedures	
Division of sling only	1
Intra-vesical Botox injections only	2
Division of sling & Botox injections	2
Excision of sling, Botox & Urinary diversion	1

At the final follow-up (range 6 weeks – 5 years), 71.4% of the women who had colposuspensions (5/7) and 81% who had mid-urethral sling surgery (13/16) were pleased or very pleased with their surgical outcomes.

Interpretation of results

In this study, our patients who underwent mid-urethral slings were more likely to experience significantly worsening OAB symptoms than patients who had colposuspensions. However, using a combination of intra-vesical Botox injections and/or sling division, a high patient satisfaction can still be achieved in the former group.

Concluding message

Patients undergoing mid-urethral slings for SUI in the presence of detrusor overactivity have to be counselled about the need for additional interventions such as Botox or sling division.

Specify source of funding or grant	None
Is this a clinical trial?	No
What were the subjects in the study?	HUMAN
Was this study approved by an ethics committee?	No
This study did not require ethics committee approval because	This was a retrospective audit.
Was the Declaration of Helsinki followed?	Yes
Was informed consent obtained from the patients?	No