

Smart Communications (SC26–SC35) Female Urology

Smart Communications	Title
SC26	Influence of detrusor underactivity on outcomes of women treated with middle urethral sling for stress urinary incontinence
SC27	The vaginal wall sling in the FDA's era: Could it still have a role?
SC28	TVT: Are the functional results lasting after 10 years?
SC29	Colposacropexy with or without uterus preservation? this is the dilemma
SC30	Prospective randomized controlled trial comparing the effect of total vs subtotal hysterectomy associated with laparoscopic colposacropexy
SC31	Influence of laparoscopic lateral suspension for pelvic organ prolapse on overactive bladder symptoms
SC32	Urodynamic findings and functional outcomes after laparoscopic sacrocolpopexy and Trocarless Transvaginal Mesh System for symptomatic pelvic organ prolapse: Two surgical techniques compared
SC33	Efficacy and safety of UpHold Vaginal Support System in transvaginal surgery of pelvic prolapse, with personal technique modification
SC34	Transvaginal mesh surgery for pelvic organ prolapse does not affect sexual function at long term follow up
SC35	Effects of intravesical hyaluronic acid instillations on iatrogenic cystitis

SC26 Influence of detrusor underactivity on outcomes of women treated with middle urethral sling for stress urinary incontinence

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Aim of the study: To evaluate the influence of detrusor underactivity (DU) on outcomes of patients underwent synthetic middle urethral sling (MUS) for stress urinary incontinence (SUI).

Materials and methods: In this multicenter prospective study started in 10.2015 and still ongoing, women with SUI, treated with MUS, were enrolled. Informed consent was obtained. Exclusion criteria were: previous SUI/pelvic surgery and/or radiotherapy, pelvic organ prolapse, predominant urge urinary incontinence, neurologic diseases. All patients underwent pre-operative UDS. As no gold standard for measuring detrusor underactivity exists, we preferred to use the most stringent urodynamics parameters described by Jeong et. al.: Pdet/Qmax < 10 cmH2O and Qmax < 12 ml/sec.1 Women were divided in: Group A pts with DU; Group B pts without DU as control group. Preoperative evaluation included also free uroflowmetry (UF), post void residual urine (PVR), post-void residual urine-ratio (PVR-R) defined as the ratio between bladder volume and PVR, and the International Continence Index Questionnaire Urinary Female LUTS (ICIQ-FLUTS). Post-operative urinary retention (POUR) was defined as PVR ≥200 ml in >/=2 evaluations and was managed with

clear intermittent catheterization (CIC) or indwelling catheter (IC). The 1-year f-up was included: physical and vaginal examination, UF, PVR, PVR-R, ICIQ-FLUTS. Statistical analysis was performed with T student and Mann Whitney test.

Results: Both the Groups had 34 patients, with similar demographic characteristics. Mean age was 68.4 y.o. Table 1 (FIG 1) shows outcomes at 1-year f-up. POUR was detected in 35.3% (12/34) of women with DU (Group A) vs 8.8% (3/34) without DU (Group B). POUR spontaneous resolution was achieved in 3–30 days in Group A, and in 7–20 days in Group B. In both groups, 5.9% (2/34) of patients had a tape incision within one month of the first surgery due to patient's decision after counseling. At 1-year f-up, SUI recurrence and de-novo urgency were 5.9% in Group A, and 11.8% in Group B.

FIGURE 1

Table 1. One-year follow-up outcomes of detrusor underactivity women (Group A) and women without detrusor underactivity (Group B).

	GROUP A (DU women)			GROUP B (no DU women)		
	Pre-op	Post-op	P	Pre-op	Post-op	P
Mean Qmax (ml/s)	10.8	12.1	0.06	29.5	20.5	0.15
Mean PVR (ml)	21.7	53.2	0.06	7.6	53.4	<0.01
Mean PVR-R (%)	19.8	17.2	0.04	4.9	11.9	<0.01
Mean ICIQ-FLUTS	79.2	30.7	<0.001	71.1	18.9	<0.001

DU detrusor underactivity, PVR post-void residual, PVR-R post-void residual ratio, ICIQ-FLUTS International Continence Index Questionnaire Urinary Female LUTS.

Discussion: DU was a risk factor for transient POUR, but not for persistent urinary retention. Although in the DU population there was a 4 times higher rate of transient POUR, in both groups there was the resolution of the POUR within one month in the patients not early surgically treated. Therefore, even in DU women with POUR it is

reasonable to wait one month before to choose a surgical management. In both groups the same number of patients decided for early POUR surgical treatment after accurate counseling. Urodynamics are useful to detect these patients allowing a tailored proper counseling. DU did not affect the re-operation rate for POUR. At 1-year f-up, results were similar in both groups showing that DU was not a negative predictive factor in terms of outcomes.

SC27 The vaginal wall sling in the FDA’s era: Could it still have a role?

E. Costantini, A. Marchesi, S. Maccherani, E. Illiano (Terni)

Aim of the study: The vaginal wall sling involves construction of a sling from the anterior vaginal wall to provide compression and support for the mid-urethra and bladder neck. It for years, until the introduction of synthetic slings on the market, it has been considered an excellent surgical approach to stress urinary incontinence(SUI). After the warnings issued by the FDA in 2008 and 2011 in some countries it has returned to use the vaginal wall sling. The primary aim of this study was to evaluate the long term functional outcomes of vaginal wall sling. The secondary aim was to evaluate the patient’s satisfaction.

Materials and methods: This was a prospective single centre study, on patients with SUI underwent in situ vaginal sling surgery. Pre operative evaluation included: history, clinical examination, urodynamic test, UDI-6 questionnaire. All patients underwent check-ups at 1, 3, 6 and 12 months post-operatively and then annually, with the preoperative protocol except for urodynamic test. They performed uroflowmetry and at last visit they completed the PGI-I questionnaire. The sling was fashioned by making two horizontal and two vertical incisions, placed to form a rectangle, on the anterior vaginal wall. The proximal horizontal incision was at the level of the bladder neck and the distal was about 1 cm posterior to the urethral meatus. The vertical incisions completed the rectangular vaginal segment (15–20–25 mm). After preparing the sling, the proximal anterior vaginal wall edge was undermined beneath the bladder neck and the posterior bladder wall to prepare it to cover the vaginal island. After this first step, dissection was continued along the lateral edges of the sling toward the inferior pubic ramus and the endopelvic fascia was opened. Helicoidal sutures in 0-non-reabsorbable monofilament and roll of Marlex mesh were positioned on each side of the sling to ensure reinforcement. The two suprapubic sutures were tied above the rectus fascia. Statistical analysis: McNemar chi-square test.

Results: From May 1996 to May 2002, 40 consecutive women underwent to vaginal sling surgery for SUI. Six patients were lost to follow-up and 12 had passed away: the remaining 20 patients (mean age 56 ± 8.6) were re-evaluated between January 2019 and February 2019, and are included in this report. Median follow-up was 243.4 months (range 203.4–275.1 months). Table 1 showed an postoperative increase of storage and voiding symptoms. After an initial improvement (1 year after surgery) at last visit there were the worsening of urinary symptoms. In particular after 1 postoperative year, the objective success rate was 55% and at last visit was 40%. Of the 12 failed patients 10 underwent further SUI surgery with synthetic sling, and 2 underwent pelvic rehabilitation. De novo urgency and voiding symptoms occurred in 40% and 4% of cases respectively. These results were confirmed also low PGI-I score

Table 1 Preoperative and postoperative functional outcomes after the vaginal wall sling

	Preoperative n (1%)	1 year postoperative n(%)	At last visit n(%)	P value
Stress urinary incontinence	20(100)	9(45)	12(60)	0.05
Mixed urinary incontinence	7(35)	6(30)	15 (75)	0.77
Storage symptoms	8(40)	7(35)	15 (75)	0.54
Voiding symptoms	2(10)	4(20)	10 (50)	0.33

Discussion: These results should justify the use of synthetic slings which in expert hands can give better long-term functional outcomes.

SC28 TVT: Are the functional results lasting after 10 years?

E. Costantini, F. Natale, A. Marchesi, E. Illiano (Terni)

Aim of the study: The aim of this study is to assess the outcomes in incontinent patients who underwent tension free vaginal tape (TVT) with a 10-year minimum follow-up.

Materials and methods: This is a single-center prospective study on women who underwent TVT for stress urinary incontinence (SUI) or stress predominant mixed urinary incontinence. The pre-operative evaluation included: history; urogynaecological examination; urodynamic test; Urogenital distress inventory short form (UDI-6) and Incontinence Impact Questionnaire (IIQ) questionnaires for symptoms; the Kings Health Questionnaire (KHQ) for quality of life (QoL). SUI was defined according to ICS standardisation and classified according to the Ingelmann-Sundberg scale. Follow-up visits were scheduled for 1,3,6,12 months after surgery and then annually with a final visit in September-October 2018. Each visit included a medical history, physical examination, and evaluation of subjective satisfaction. They completed the same pre-op questionnaires and the Patient Global Impression of Improvement (PGI-I). Objective cure for SUI was defined as the absence of urine leakage during the stress test. Subjective cure was defined by a ‘no-answer’ to question 3 of the UDI-6 questionnaire. We considered voiding dysfunctions to be present when a patient answered affirmatively at least two structured questionnaire questions and also answered ‘moderately’ or ‘greatly’ to question 5 of UDI-6. The primary outcome was the SUI cure rate. Secondary outcomes included improvement in QoL, effect on urinary symptoms and late adverse events. Local Committee approved this study; participants gave informed consent. Statistical analysis: McNemar chi-square test; Fisher’s exact test.

Results: From January 2004 to December 2008, 80 consecutive patients underwent TVT. Sixteen patients were lost to follow-up, so we report data on 64 patients (mean age was 62.3 ± 10.18). The figure 1 showed the functional outcomes. At a mean follow-up of 139 months, 47 patients (73.4%) were subjectively cured for SUI. The objective cure rate was 78.9%. Of the 16 failed patients none underwent further SUI surgery. The urgency urinary incontinence appeared de novo in 3.1% of the entire sample. Urgency increased statistically significantly (from 29.6 % to 35.9%), as did urgency urinary incontinence (from 31.2 % to 34.3%). De novo urgency occurred in 6.2% of cases. Voiding symptoms decreased from 18.7% to 7.8%. De novo voiding symptoms appeared in 4.5% of patients. In no patients did we observe a PVR > 50 ml. Post-operatively, no urodynamic obstruction was observed using the Blaivas and Groutz nomogram. All domains of the KHQ except general health and sleep saw statistically significant improvements. We had none cases of mesh exposure.

Figure 1: Functional outcomes after TVT .Preoperative versus at last visit data

