Discussion: Our study demonstrates that in the period of ten or more years after TVT surgery, cure rates may still be considered satisfactory, with a good impact on quality of life and a low rate of complications.

SC29 Colposacropexy with or without uterus preservation? this is the dilemma

E. Illiano, F. Natale, A. Marchesi, R. Filipponi, A. Zucchi, E. Costantini (*Terni*)

Aim of the study: The choice between hysterectomy or uterus preservation in patients with pelvic organ prolapse (POP) > stage II is still a controversial matter. Aim of this study is to compare objective and subjective outcomes in women who underwent sacrocolpopexy with or without hysterectomy.
Materials and methods: This is a single center prospective study. We included women with II-IV stage POP according to the POP-Q who performed sacrocolpopexy with total hysterectomy (HYSP) or with uterus preservation (HSP) by abdominal or laparoscopic route. The choice between HYSP or HSP included a detailed counseling. The exclusion criteria were: post-menopausal bleeding, previous CIN, abnormal cervical smears, uterine disease including uterine enlargement or cervical ulceration, and a family history of adnexal or uterine cancer. The preoperative evaluation included: history, clinical examination, urodynamic test. All women completed the IIQ-7, UDI-6 and the FSFI questionnaires. The follow up was performed at 1, 3, 6 and 12 months postoperatively and then annually. At last visit they completed PGI-I questionnaire. Perioperative and late complications were recorded according to the Clavien–Dindo classification. Statistical analysis: The Mann-Whitney and Wilcoxon tests,the McNemar, chi-square or Fisher exact test with $p < 0.05$.
Results: Between December 2013 to December 2018 139 patients, with symptomatic stage >II POP underwent SC (85 HYSP and 55 HSP). Three patients (2 in the HYSP group and 1 in the HSP group) were lost at the last follow-up so 136 patients were included in the study. At a median follow-up of 49.2 months (range 12 to 61 months) clinical evaluation showed a good anatomical correction in both groups with no differences between the HYSP and HSP group (Table I). In both groups no woman had recurrent of anterior, posterior or apical prolapse. In anterior compartment there were 4 and 3 cases of asymptomatic stage II persistence in HSP and HYSP group respectively. In HSP and HYSP there were 3 and 2 peristent cases (stage II) in posterior compartment. None of these patients underwent reoperation. Table II showed functional results that demonstrated a significant improvement in all the symptom without any difference between the two groups. Furthermore IIQ-7, UDI-6 and FSFI scores were significantly improved, as well as the PGI-I scores were high in both group (1 in 95% and in 96% in HYSP and HSP group respectively). According to the Clavien Dindo in both groups there were 2 cases of complications of grade I, 6 cases of grade II in HYSP group, and 3 in HSP group. In HYSP and in HSP groups there were 9 and 4 complications grade III respectively. Six cases of mesh exposures were recorded in HYSP group and 2 in HSP group. They were treated by vaginal revision. There were no diffrences between abdominal and laparoscopic approach.

Table II: Functional outcomes in HYSP and HSP group

Table II	HYSP PRE	HYSP POST	P value	HSP PRE	HSP POST	P value	P Hy vs hsp post
Voiding symptoms N (%)	69 (84.1%)	2 (2.5%)	<0.0001	49 (90.7%)	1 (1.9%)	<0.0001	0.82
Storage symptoms N (%)	60 (75%)	7 (8.6%)	<0.0001	37 (68.5%)	6 (11.1%)	<0.0001	0.61
Stress urinary incontinence N (%)	39 (47.6%)	21 (25.6%)	<0.0001	23 (42.6%)	11 (20.4%)	0.001	0.48
Urgency urinary incontinence N (%)	11 (13.4%)	3 (27.2%)	0.001	15 (27.7)	2 (13.2)	<0.0001	0.99
Sexually active N (%)	41 (50%)	53 (64.6%)	<0.0001	36 (66.7%)	42 (77.8%)	<0.0001	0.10
Sexual disturbances N (%)	31 (37.8%)	3 (3.7%)	<0.0001	19 (35.2%)	1 (1.9%)	<0.0001	0.54
Constipation N (%)	32 (39%)	10 (12.2%)	<0.0001	23 (42.6%)	8 (14.8%)	<0.0001	0.7

Discussion: This study showed that there were no differences, in anatomic and functional outcomes, to perform a colposacropexy with hysterectomy or with uterus preservation.

SC30 Prospective randomized controlled trial comparing the effect of total vs subtotal hysterectomy associated with laparoscopic colposacropexy

E. Natale, E. Illiano, A. Marchesi, E. Costantini (*Rome*)

Aim of the study: The primary objective of this study is to compare the anatomical efficacy of laparoscopic colposacropexy (L-CSP) associated with total or subtotal hysterectomy. The secondary objective is to evaluate the effects of these two procedures on urinary symptoms and to define their impact on Quality of Life (QoL).
Materials and methods: This is a prospective randomised study on women who underwent L-CSP for symptomatic stage >2 POP. Pre operative evaluation included: history, pelvic examination, urodynamic study, questionnaires (IIQ-7 and UDI-6, P-QoL). Patients were randomised to undergo L-CSP with total hysterectomy (Group 1) or with subtotal hysterectomy (Group 2). Patients were followed up at 3, 6 and 12 months and thereafter annually, using the preoperative protocol. Patients also completed the PGI-I scale, and the VAS. The complications were evaluated according to the Clavien–Dindo classification. All participants gave informed consent. Patients with a minimum 24 months follow-up were included in this report.Statistical analysis: McNemar Chi-square test, T-test, Mann–Whitney test, $p < 0.05$.
Results: From September 2010 to September 2016, a total of 119 patients with symptomatic POP> stage 2 were enrolled. Of those, 100 patients were found to be eligible for our study: 50 were randomized in Group 1 and 50 were randomized in Group 2. No significant

Table I: Anatomical outcomes in HYSP and HSP group

	Aa pre	Ap pre	Ba pre	Bp pre	c/d pre	Aa post	Ap post	Ba post	Bp post	c/d post
HYSP	-3.5±2.3	-3.4±2.06	-0.9±1.61	-1.1±1.88	-2.1±2.75	-2.3±0.9	-2.3±0.87	-1.5±1.16	-2.5±0.63	-7.8±1.3
HSP	-3.7±1.6	-3.6±1.77	-1.4±1.46	-0.9±2.0	-3.1±1.4	-2.4±0.76	-2.1±0.84	-1.4±1.14	-2.5±0.9	-7.2±1.06
P value	P=0.54	P=0.53	P=0.12	P=0.57	P=0.09	P=0.97	P=0.05	P=0.45	P=0.95	P=0.06

Table: (abstract: SC29).

difference was found between groups in demographic and clinical data. We had a statistically significant anatomical correction in all vaginal segments in both groups. In particular in Group 1 we had a correction of anterior vaginal prolapse in 91.3% of patients, of central descensus in 93.5% and of posterior vaginal prolapse in 95.7%; in Group 2 we had a correction of anterior vaginal prolapse in 90.9% of patients, of central descensus in 93.2% and of posterior vaginal prolapse in 93.2%. No intra-operative complications occurred in both groups. Vaginal mesh extrusion was observed in 5 patients in group 1 (2 underwent surgical partial removal of the mesh). No complications were observed in group 2. Pre and post-operative symptoms of both groups are reported in Table 1. In group 1 we had de novo UUI in 3 patients and de novo constipation in 2 patients. In group 2 we had de novo UUI in 4 patients, de novo dry OAB in 3 patients and de novo constipation in 2 patients Quality of life was significantly improved in all domains in both groups, according to the King's Health Questionnaire. We observed a statistically significant differences between the two groups in the VAS score (mean value 8.84 in group 1 vs 9,45 in group 2 – p = .0263) and in PGI-I score (mean value 1.56 in group 1 vd 1.20 in group 2 – p = 0046).

Table 1- Pre and post-operative symptoms in both groups

	Group 1 N° 46			Group 2 N° 44		
	Pre-op	Post-op	p*	Pre-op	Post-op	p*
IUS, n° (%)	18 (39.1)	14 (30.4)	.3865	16 (36.4)	21 (47.7)	.2636
UUI, n° (%)	13 (28.3)	7 (15.2)	.1489	13 (29.5)	6 (13.6)	.1815
Dry OAB	32 (69.6)	4 (8.7)	.0000	22 (50)	6 (13.6)	.0014
Voiding symptoms	39 (84.8)	2 (4.3)	.0000	34 (77.3)	3 (6.8)	.0000
Constipation	18 (39.1)	8 (17.4)	.0162	18 (40.9)	12 (27.3)	.0439

* McNemar Chi-square test

Table 2- Comparison of post-op results between the two groups

	Group 1 n. 46	Group 2 n. 44	
	Post-op	Post-op	p*
IUS, n° (%)	14 (30.4)	21 (47.7)	.1904
UUI, n° (%)	7 (15.2)	6 (13.6)	1.0000
Dry OAB, n° (%)	4 (8.7)	6 (13.6)	.7518
Voiding symptoms, n° (%)	2 (4.3)	3 (6.8)	1.0000
Constipation, n° (%)	8 (17.4)	12 (27.3)	.4533
Pont Ba >stage 2, n° (%)	4 (8.7)	4 (9.1)	.5465
Pont C>stage 2, n° (%)	3 (6.5)	3 (6.8)	.9123
Point Bp>stage 2, n° (%)	2 (4.3)	3 (6.8)	.2207

Discussion: This study demonstrates that both techniques are equivalent regarding anatomy, function and QoL. L-CSP associated with total hysterectomy has a higher incidence of post-operative complications than the association with a subtotal hysterectomy which, in our opinion, is a factor to consider when selecting the appropriate surgical procedure.

SC31 Influence of laparoscopic lateral suspension for pelvic organ prolapse on overactive bladder symptoms

E. Malanowska, E. Rubilotta, A. Starczewski, W. Bielewicz, M. Balzarro (*Szczecin, Poland*)

Aim of the study: To assess the anatomical results and the effect on OAB symptoms in women underwent laparoscopic lateral suspension (LLS) for pelvic organ prolapse (POP).

Materials and methods: This prospective study included women with apical POP underwent surgical repair with LLS from 01.2016 to 12.2017. The baseline and the 1-year f-up included: post-void residual (PVR) urine, urinalysis, vaginal examination, OAB symptoms, questionnaires (Pelvic Floor Distress Inventory 20 - PFDI20; Urinary Distress Inventory 6 - UDI 6; Colorectal-anal Distress Inventory 6 - CRADI6; Pelvic Organ Prolapse Distress Inventory 6 - POPDI6. Exclusion criteria were: PVR >150 ml, posterior vaginal wall defects, previous prolapse or incontinence surgery or hysterectomy, neurological conditions, diabetes, bladder pain syndrome. To correlate the different stages of POP and OAB, we divided the population in 3 groups: Group 1 anterior vaginal wall and Cervix defect both Stage II; Group 2 anterior vaginal wall defect Stage III and Cervix defect Stage II; Group 3 anterior vaginal wall and Cervix defect both Stage III. Statistical evaluation was done by Pearson's correlation and Student t-test (p value < 0.001).

Results: 64 women underwent LLS for uterine prolapse, 78.1% had concomitant anterior vaginal wall defect. Mean age was 59.4 y.o. At 1-year f-up anatomic success rates was 84.4% for apical and 76.2% for anterior compartment (table 1). Total recurrences rate was 12.5%: anterior vaginal wall 3.1%; apical 4.7%; enterocele 1.6%; posterior vaginal wall 3.1%. Need for reoperation was 10.9%. No patient had vaginal mesh exposure. Comparison between OAB symptoms before and after LLS showed a significant resolution of OAB in 76% of the women, while 2.6% had de-novo. Both stress and urgency urinary incontinence positively changed (p < 0.001). Female sexual functions didn't change. Table 2 reports symptoms before surgery and at the 1-year f-up. In all the 3 groups we documented a trend in ameliorating of OAB after surgery, regardless of the POP-Q stage. However, significant correlation was achieved only in Group 2. Group 1 was composed by 11 women: preoperative OAB in 2 and postoperative OAB in 1 (p < 0.34). Group 2 was composed by 31 women: preoperative OAB in 13 and postoperative OAB in 2 (p < 0.0003). Group 3 was composed by 22 women: preoperative OAB in 10 and postoperative OAB in 4 (p < 0.03). Patient satisfied after POP repair were 95.3%.

Figure 1: Symptoms and objective assessment before surgery and at 12 months follow-up

Objective assessment: preoperative and the follow-up (*T test)

POP-Q parameters	Preoperative *Mean (SD)*	Follow-up at 12 months *Mean (SD)*	*P**
Aa	0.80 (±0.95)	-1.69 (±0,89)	<0,001
Ba	1.67 (±1,13)	-1.63 (±1,11)	<0,001
C	-0.06(1.63)	-5.55(±2,53)	<0,001
GH	4.00 (±0.59)	2.77 (±0.75)	<0.001
PB	2.33 (±0.84)	2.66 (±0.62)	<0.006
TVL	10 (±0)	10 (±0)	-
Ap	-0.44 (±1.08)	-1.54(±1,04)	<0,001
Bp	-0.47 (±1,01)	-2.19 (±2,29)	<0,001

Symptoms before surgery, and at the 12 months follow-up

	Preoperative *n* (%)	Follow-up *n* (%)	Valuable positive change, *n* (%)	Valuable negative change, *n* (%)	*P*
Bulging	62/64 (96.9)	10/64 (15.6)	52/62 (83.9)	0/2 (0.0)	<0,001
UUI	26/64 (40.6)	10/64 (15.6)	18/26 (69.2)	2/38 (5.3)	<0,001
SUI	14/64 (21.9)	7/64 (10.9)	9/14 (64.3)	2/50 (4.0)	<0,042
Urinary frequency >8/day	39/64 (60.9)	13/64 (20.3)	27/39 (69.2)	1/25 (4.0)	<0,001
Nycturia (≥ 1)	28/64 (43.7)	1/64 (1.6)	27/28 (96.4)	-	<0,001
Overactive Bladder	25/64 (39.1)	7/64 (10.9)	19/25 (76.0)	1/39 (2.6)	<0,001
Constipation	39/64 (60.9)	22/64 (34.4)	18/39 (46.1)	1/25 (4.0)	<0,001
Sexual activity	37/64 (57.8)	38/64 (59.4)	3/27 (11.1)	2/37 (5.4)	<0,658

Discussion: LLS was an effective procedure for apical and anterior vaginal wall defects with a high objective and subjective success rate. A great cure rate of OAB symptoms was evidenced specially in women with anterior vaginal wall defect stage III and Cervix stage II POP. The low sample size and the lower POP stage of patients in Group 1 may have affected the results in other groups. Higher POP stage could not gain advantages from the surgery due to its severity and prolonged condition. Anyway, women may benefit from a resolution of OAB and POP symptoms with the improvement of patient's quality of life.

SC32 Urodynamic findings and functional outcomes after laparoscopic sacrocolpopexy and Trocarless Transvaginal Mesh System for symptomatic pelvic organ prolapse: Two surgical techniques compared

E. Illiano, F. Natale, A. Marchesi, R. Filipponi, A. Giannantoni, M. Gubbiotti, E. Costantini (*Terni*)

Aim of the study: In literature few studies have objectified the functional outcomes of pelvic organ prolapse (POP) surgery by urodynamic parameters, comparing the vaginal and laparoscopic