167 Open Communications 8 - Urogynecology (4:32 PM - 4:37 PM)

Incidence of Postoperative Thigh Pain after TVT Obturator and TVT Abbrevo

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Study Objective: Primary objective is to compare incidence of post-operative thigh pain following placement of the full length Gynecare TVT™ Obturator System (TVT-O) versus the shorter Gynecare TVT Abbrevo® Continence System (TVT-Abbrevo). Secondary objective is to compare the efficacy between both devices 6 months after surgery.
Design: A retrospective cohort study following women who received a transobturator midurethral sling.
Setting: University Hospital.
Patients: All women who underwent a transobturator midurethral sling from January 2007 to December 2012 and were followed for up to 24 months.
Intervention: Before January 2011, all transobturator slings we used were TVT-O. Following this date, the TVT-Abbrevo was used exclusively. The manufacturer was not involved in this decision to switch or in the study.
Measurements and Main Results: Charts were reviewed for post-operative thigh pain, removal of mesh for thigh pain, exposure/erosion and reoperation for exposure at any stage of follow-up. Patient demographics were recorded including age, parity, prior surgery for prolapse or urinary stress incontinence and current use of anti-cholinergic medications. Preoperative and 6-month postoperative Incontinence Severity Index (ISI), Urodynamic Distress Inventory-6 (UDI-6) and Pelvic Floor Impact Questionnaire-7 (PFIQ-7) scores were compared using T-tests. Incidence of post-operative thigh pain was dichotomized as present/absent and compared between groups using Chi square test.
125 patients received TVT-O and 80 patients received TVT-Abbrevo. No significant differences in demographic data were present. Mean (range) follow-up for TVT-O and TVT-Abbrevo was 6.2 months (range 1-24) and 5.9 months (range 1-20) respectively. Twelve (9.6%) patients in the TVT-O group and 1 (1.3%) patient in the TVT-Abbrevo group experienced bothersome thigh pain at any point (P value = 0.02). At 6 months, this difference remained significant (Table 1). There was no significant difference in the mean improvement for incontinence questionnaire scores between groups (Table 2).

Table 1
Primary outcome: Post-operative groin pain

Post-op groin pain	TVT-O	TVT-Abbrevo	P value
Any stage of follow-up	12 of 125 (9.6%)	1 of 80 (1.3%)	0.02
At 6 months	7 of 86 (8.1%)	0 of 50 (0%)	0.047

Table 2
Secondary outcome; incontinence severity scores

	TVT-O, Mean (SD)	TVT-Abbrevo, Mean (SD)	P value
Improvement in ISI score	5.0 (3.3)	5.1 (3.4)	0.8
Improvement in UDI-6 score	8.3 (6.8)	8.5 (6.5)	0.9
Improvement in PFIQ-7 score	4.8 (5.8)	6.7 (6.4)	0.2

Conclusion: The TVT-Abbrevo reduces postoperative groin pain compared to the full-length TVT-O, without any reduction in subjective benefit.

168 Open Communications 8 - Urogynecology (4:38 PM - 4:43 PM)

Indication and Surgical Treatment of Midurethral Sling Complications: A Multicenter Study

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Study Objective: 1) To evaluate the most common indication for sling removal 2) To discuss the location of pain for each sling procedure 3) To compare the indications for surgery between the three different types of slings.
Design: A retrospective chart review.
Setting: Three referral centers.
Patients: We included all patients who underwent surgical removal of sling related complications from 2011 to 2013.
Measurements and Main Results: There were 337 sling complications classified. Retropubic sling (RP) was more likely to have urinary tract

IUGA/ICS classification of complications related directly to the midurethral sling in female pelvic reconstructive surgery (286 sling removed, 337 complication classified)

Category	sling (n=337) RP (n=133)	TOT (n=150)	SIS (n=47)	P-value
1. Vaginal: no epithelial separation	85 (65.38)	101 (67.79)	33 (70.21)	0.814
2. Vaginal: smaller ≤1 cm exposure	12 (9.23)	15 (10.07)	10 (21.28)	0.067
3. Vaginal: larger > 1 cm exposure, or any extrusion	8 (6.15)	14 (9.40)	1 (2.13)	0.207*
4. Urinary tract: compromise or perforation including prosthesis (graft) perforation and fistula	13 (10.00)	4 (2.68)	2 (4.26)	0.030*
5. Rectal or bowel: compromise or perforation including prosthesis (graft) perforation and fistula	2 (1.54)	0 (0)	0 (0)	0.219*
6.Skin or musculoskeletal: complications including discharge pain lump or sinus tract formation	9 (6.92)	15 (10.07)	1 (2.13)	0.187*
7. Patient: compromise including hematoma or systemic compromise	1 (0.77)	0 (0)	0 (0)	0.470*
Time (Clinical diagnosed)				
T1: Intraoperative to 48 hours	1 (0.77)	0 (0)	0 (0)	0.470*
T2: 48 hours to 2 months	4 (3.08)	4 (2.68)	0 (0)	0.490*
T3: 2 months to 12 months	15 (11.54)	12 (8.05)	4 (8.51)	0.594*
T4: over 12 months	110 (84.62)	133 (89.26)	43 (91.49)	0.348
Site				
S1: vaginal: area of suture line	19 (14.62)	18 (12.08)	10 (21.28)	0.293
S2: vaginal: away from suture line	59 (45.38)	86 (57.72)	28 (59.57)	0.075
S3: Trocar passage	7 (5.38)	11 (7.38)	2 (4.26)	0.664*
S4: other skin or musculoskeletal site	19 (14.62)	33 (22.15)	7 (14.89)	0.219
S5: Intra-abdominal	26 (20.00)	1 (0.67)	0 (0)	<0.001*

*Fisher's exact test

complications (category 4) and intra-abdominal site complications (S5) than other slings.

Main indications for RP and transobturator tape (TOT) sling revision/ removal were pain (53.9%, 66.0%), dyspareunia (14.6%, 10.7%), and urinary retention (6.9%, 5.3%), respectively. Main indications for single incision sling (SIS) removal were were pain (57.5%), dyspareunia (14.6%), and erosion/extrusion (6.4%). Urinary retention was more likely to be an indication for removal in RP group (p=0.049). Of those 286 sling/mesh removed, 106 (37.1%) accounted for RP, 131 (45.8%) TOT, and 44 (15.4%) SIS. Vaginal pain was the most common site across sling types.

Type of sling removed due to pain, n (%)

	sling (n=179)			
Pain location	**RP (n=63)**	**TOT (91)**	**SIS (n=25)**	**P-value**
vagina	29 (46.03)	48 (52.75)	14 (56.00)	0.580
paraurethra	3 (4.76)	5 (5.49)	3 (12.00)	0.403*
thigh	0 (0)	2 (2.20)	0 (0)	0.376*
groin	3 (4.76)	19 (20.88)	2 (8.00)	0.012*
suprapubic/ lower abdomen	17 (26.98)	10 (10.99)	4 (16.00)	0.037*
abdomen	11 (17.46)	7 (7.69)	2 (8.00)	0.150*

*Fisher's exact test

21% of TOT group had groin pain which was 5 times higher risk than RP group (OR 5.3, 95%CI 1.5- 18.7). RP group was 3 times more likely to have suprapubic pain than TOT group (OR 2.97, 95% CI 1.3- 7.0). 8/11 transurethral removal were SIS. 5/6 bladder removal were RP sling. Two patients who underwent laparoscopic RP sling removal received blood transfusion and one patient had retroperitoneal hematoma required reoperation. Among TOT removal, 3 patients had intraoperative urethral injury and 2 patients had excessive blood loss.

Conclusion: The most common indication for sling removal was vaginal pain. RP sling has higher risk of suprapubic pain and TOT sling has higher risk of groin pain. Patients with a history of SIS may have a higher incidence of urethral erosion.

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Stress Urinary Incontinence: Impact of Self Perineal-Rehabilitation at Home after Conventional Perineal Rehabilitation

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Study Objective: The pelvic floor muscle rehabilitation is the first step of treatment of stress urinary incontinence (SUI). However, patients have to perform self-retraining exercises at home, in order to maintain the benefit of the physiotherapy. The aim of this study is to assess the benefit of a perineal electro-stimulator, during this home-care phase.

Design: Longitudinal prospective study (Canadian Task Force classification II-2).

Setting: Gynecology department in a teaching hospital.

Patients: Ten patients with de novo SUI were included between May 2012 and May 2013.

Intervention: All patients benefited from a pelvic floor muscle training followed by a 2-month self-maintenance at home of perineal rehabilitation with the KEAT® Pro system (Codepharma, France). The evaluation of clinical symptoms and quality of life was made using validated questionnaires. The biometrics of levator ani muscle, the measures of the angle and the urogenital hiatus area were assessed by 3D perineal ultrasound at inclusion, after conventional rehabilitation and after self-rehabilitation.

Measurements and Main Results: Nine patients (90%) completed the protocol and one patient (10%) was lost to follow-up. Mean age was 48 year (37-59). All patients (100%) showed clinical improvement of SUI. The scores of quality of life were significantly improved at the end of protocol versus inclusion (17.9 vs 10.3, p = 0.02). Elevator Ani muscles were significantly thicker after conventional rehabilitation than at baseline (8.5 mm vs 7.1 mm; p = 0.01) and significantly thicker after self-rehabilitation than after conventional rehabilitation (9.2 vs 8.5 mm; p = 0.01). The perineal angle and the surface of the urogenital hiatus were significantly decreased after self-rehabilitation training compared to measurements performed after conventional rehabilitation (50° vs 52.5°; p = 0.03 and 5.9 vs 4.8 cm2; p = 0.01 respectively). No complications were reported.

Conclusion: Conducting a self-rehabilitation in addition to conventional rehabilitation objectively improves perineal muscle building obtained after conventional rehabilitation.

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Clinical Manifestations and Outcomes in Surgically Managed Gartner Cysts

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Study Objective: Gartner duct cysts (GDC) are rare embryological remnants of the mesonephric duct with the majority of cases discovered incidentally in asymptomatic patients. The largest prior published series included 5 cases. The present study aims to determine the manifestations and outcomes of surgically managed patients with GDC with important implications for surveillance, monitoring, and management of patients.

Design: Retrospective chart review.

Setting: Tertiary care center.

Patients: All women diagnosed with GDC from 1/1994-4/2014 at our institution. Thirty-six women underwent surgery during the study period including 32 pathologically confirmed as GDC.

Intervention: Diagnosis was determined by physical exam and/or image modalities. Surgical management included excision or marsupialization.

Measurements and Main Results: The median age was 37.5 years at time of treatment and mean cyst size was 3.2 cm in the greatest dimension. Common manifestations included dyspareunia or pain with insertion of tampon (28%), pelvic pain or pressure (22%), and urinary incontinence (6.3%). Fifty percent were found incidentally during pelvic exam of which 44% were discovered during perinatal or post-hysterectomy examinations. Imaging supporting the clinical diagnosis of a GDC was performed preoperatively in 66% cases, of which US was used in 42%, CT in 26%, MRI in 5%, and multiple imaging modalities in 21%. No other mesonephric developmental anomalies were seen on preoperative imaging. Nine percent were found to have other genitourinary anomalies, which included 2 patients with recurrent urethral diverticula and one with a bladder cyst. Management of GDC was via excision except in 3 cases of marsupialization. Blood loss was less than 150 mL unless an unrelated concomitant procedure was performed. No intraoperative complications occurred.

Conclusion: GDC are rare pelvic masses that often present as dyspareunia, pelvic pain or pressure, and urinary incontinence. Pregnancy or vaginal hysterectomy may result in incidental discovery during pelvic exam. Diagnosis with ultrasound is reliable. Excision or marsupialization is successful without significant morbidity.

171 Video Session 6 - Hysteroscopy (3:20 PM - 3:26 PM)

Robotic Assisted Laparoscopic Cerclage

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Trans-abdominal cerclage has been shown to be an effective option in treating patients with incompetent cervix who have failed a previous vaginal cerclage or have a shortened cervix.