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ORAL POSTER 1

**Impact of Transdermal Oxybutynin on Sexual Function in Patients With Overactive Bladder: Results From the MATRIX Study**

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**OBJECTIVES:** This analysis was conducted to assess the impact of treatment with transdermal oxybutynin on sexual function in patients with overactive bladder (OAB) in a large, community-based population.

**MATERIALS AND METHODS:** The Multicenter Assessment of Transdermal Therapy in Overactive Bladder with Oxybutynin (MATRIX) study was a cohort analysis trial of community-dwelling adults diagnosed with overactive bladder (OAB). Patients were treated with transdermal oxybutynin for up to 6 months and evaluated for safety and patient-reported outcomes. The King's Health Questionnaire® (KHQ) and Beck Depression Inventory®-II (BDI-II) were used to assess OAB impact on patients' interest in sexual intimacy. The KHQ, a quality of life instrument specific to OAB, is scored from 0 (best) to 100 (worst), while the BDI-II, which measures depression symptoms, is scored from 0 (best) to 63 (worst), with scores >12 indicating clinical depression. P values were based on chi-squared test.

**RESULTS:** The MATRIX study enrolled 2878 patients (mean age, 62.5y±14.8y; 2508 [87.1%] women, 2406 [83.6%] Caucasian). At baseline, 1334 patients (46.4%) reported experiencing OAB symptoms for ≥4 years, while 346 patients (12.0%) had experienced symptoms for ≤1 year. Of 2859 patients who responded, 1632 (57.1%) had been treated before for OAB. At baseline, KHQ responses indicated that 1845/2571 (71.8%) were embarrassed by their bladder problems. In 586/2534 (23.1%) patients, OAB affected their sex life; in 622/2555 (24.4%), OAB affected their relationships with their partners. Baseline responses to the BDI-II indicated that 1219/2341 (52.1%) patients experienced decreased interest in sex: 589 (25.2%) less interest, 228 (9.7%) much less interest, 402 (17.2%) complete loss of interest. By end of study, paired patient responses showed significant (P<.0001) improvement in embarrassment (828/2330 [35.5%] improved; 235 [10.1%] worsened), in OAB effects on sex life (429/2250 [19.1%] improved; 251 [11.2%] worsened), in relationships with partners (444/2269 [19.6%] improved; 271 [11.9%] worsened), and in interest in sex (472/2018 [23.4%] improved; 246 [12.2%] worsened). Patients reported significant (P<.0001) improvement from baseline to end of study in symptoms that may impact sexual intimacy. Intercourse incontinence, experienced by 569/2493 (22.8%) patients at baseline, improved in 277/2190 patients (12.6%) and worsened in 165 (7.5%). Frequent UTIs, 931/2467 (37.7%) at baseline, improved in 450/2164 patients (20.8%) and worsened in 242 (11.2%). Bladder pain, experienced by 1092/2505 (43.6%) patients at baseline, improved in 553/2211 (25.0%) and worsened in 240 (10.9%).

**CONCLUSION:** The degree to which OAB symptoms affect sexual function may be influenced by physiologic, psychosocial, or socioeconomic factors, in addition to disease severity. Specific bladder symptoms may cause embarrassment and a resultant decrease in sexual interest. Many of these sexual function symptoms significantly improved in patients who were treated for up to 6 months with transdermal oxybutynin in this study.

**Key Words: incontinence, urinary incontinence, sexual function, oxybutynin, urge incontinence, quality of life**

Disclosure - Consultant, Advisory Board: Peter Sand, Watson Pharma, Inc; employee: Marilyn McIlwain, Watson Laboratories.

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ORAL POSTER 2

**Quality of Life and Continence One Year After the Tension-Free Vaginal Tape (TVT) Operation**

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**OBJECTIVES:** To evaluate changes in quality of life (QoL) and continence rates one year after the Tension-free vaginal tape (TVT) operation.

**MATERIALS AND METHODS:** We evaluated clinical outcomes and quality of life in 95 of 116 consecutive patients who underwent a retropubic TVT procedure (Gynecare) between May 2002 and June 2004. Before and 12 months after surgery patients underwent clinical assessment with cystometry and urethral profilometry and completed German-language versions of the Kings Health questionnaire and the SF-36. 47 (50%) of women had undergone previous surgery for incontinence or prolapse. 66 (74%) TVTs were performed as isolated procedures, 29 (26%) with concomitant operations. Cronbachs alpha coefficients were calculated for KHQ subscales. Scale responsiveness was examined by comparing mean differences in the KHQ domains before and after treatment in relationship to the results of the cough stress test.

**RESULTS:** Overall the objective continence rate at 1 year was 82% and did not differ significantly between women undergoing TVT alone or in combination (84% vs. 68%, respectively). Significant improvements were seen in the following domains of the KHQ: incontinence impact, role limitations, physical limitations, emotions, severity measures and overactive bladder; no significant changes were seen in the domains general health perception, social limitations, personal relationships and sleep/energy. Similar but less pronounced improvements in QOL were seen in women with no change or worsening of continence postoperatively. The SF-36 showed changes only in the domain general health.

**CONCLUSION:** The TVT operation is associated with improved condition-specific QOL in women with stress urinary incontinence. Changes in QOL do not necessarily correlate with the objective continence status of continent/incontinent. The condition-specific KHQ is more appropriate than the generic SF-36 for evaluating treatment results in women treated for stress incontinence. Apparently urinary incontinence can be perceived as a nuisance rather than as an illness.

**Key Words: stress incontinence, tension-free vaginal tape, quality of life**

Disclosure - Advisory Board: Karl Tamussino, Lilly Boehringer; Consultant: Karl Tamussino, Gynecare.

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ORAL POSTER 3

**Decreased Rate of Obstetrical Anal Sphincter Laceration Reflects Change in Obstetric Practice**

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**OBJECTIVES:** To estimate the rate of obstetrical anal sphincter laceration in a large cohort of women undergoing vaginal delivery and to identify characteristics associated with this complication, including modifiable risk factors.

**MATERIALS AND METHODS:** Information from a computerized database that included all deliveries occurring between January 4, 1996 and December 8, 2004 at one institution was used to calculate the rate of anal sphincter laceration as well as to compare women with and without an anal sphincter laceration at vaginal delivery. T-tests and chi-square tests were used to identify factors associated with anal sphincter laceration including maternal age, gestational age, birth weight, vacuum or forceps delivery, episiotomy, estimated blood loss at delivery, presence of shoulder dystocia, use of epidural anesthesia, and use of oxytocin. Generalized estimating equations were used to identify significant independent risk factors for anal sphincter lacerations as well as estimate odds ratios associated with each factor while accounting for repeated measures in women with multiple births at the hospital.

**RESULTS:** Mean age (SD) years was 27.1 (6.5), and the women were 87.7% Hispanic, 6.1% African American, 3.2% Asian Pacific Islander, 2.7% Caucasian, and 0.03% other or unknown. 1,703 (10.2%) third and fourth-degree lacerations occurred among 16,667 vaginal deliveries: 857 (17.5%) occurred among 4891 primiparas and 846 (7.2%) occurred among 11,776 multiparas. All factors considered were individually significant predictors of anal sphincter lacerations at  $p < 0.0001$ . Women with an anal sphincter laceration were significantly more likely to have a fetus of higher gestational age or increased birth weight. Results from regression models suggested that episiotomy (OR 1.35; 95% CI 1.16, 1.57), vacuum delivery (OR 3.20; 95% CI 2.70, 3.80), and forceps delivery (OR 2.79; 95% CI 1.94, 4.02) were all associated with increased risk of anal sphincter laceration. Increasing parity (OR 0.64; 95% CI 0.61, 0.68) and use of epidural anesthesia (OR 0.86; 95% CI 0.76, 0.97) each demonstrated a protective effect. Year of delivery was also associated with a decreased risk of anal sphincter laceration (OR 0.94; 95% CI 0.91, 0.96) with the rate of laceration decreasing from 11.2% to 1.1% during the study period.

**CONCLUSION:** This report demonstrates a high rate of anal sphincter laceration in a predominantly Hispanic population. Episiotomy and operative vaginal delivery are significant, modifiable risk factors for obstetrical anal sphincter laceration. Changes in obstetric practice such as increased cesarean delivery and decreased episiotomy may have contributed to the dramatic reduction in anal sphincter laceration during the study period.

**Key Words:** fecal incontinence, obstetrical anal sphincter laceration, cesarean section, vacuum delivery, forceps delivery, episiotomy

Disclosure - Advisory Board: Daniel R. Mishell, Jr., Barr, Organon; Advisory Board,

Speaker Bureau: Steven Minaglia, OrthoMcNeil; Consultant: Steven Minaglia, American Medical Systems, Daniel R. Mishell, Jr., Pfizer; Research Support, Advisory Board: Daniel R. Mishell, Jr., Berlex; Speaker Bureau: Steven Minaglia, Pfizer.

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ORAL POSTER 4

**A Randomized Placebo-Controlled Trial of Misoprostol to Decrease Catheterization Time After Urogynecological Surgery**

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**OBJECTIVES:** To determine if the pharmacologic agent misoprostol decreases the number of days required for suprapubic catheterization after urogynecologic surgery.

**MATERIALS AND METHODS:** Between June 2004 and January 2005, 33 patients undergoing vaginal surgery for pelvic organ prolapse (with at least an anterior vaginal wall prolapse to the hymen) with or without an anti-incontinence procedure were randomized to receive oral misoprostol 200 ug QID or placebo starting post-operative day 1. All patients received a suprapubic catheter. Successful voiding trials occurred when 3 consecutive post-void residuals were less than 20% of the void volume, at which point catheterization and the use of the treatment/control was aborted. The maximum number of days a patient was allowed on misoprostol or control was 14 days. Patients were evaluated on at least 2 occasions as an outpatient within the two-week post-operative period. The number of days required for suprapubic catheterization, complications related to catheterization, patient satisfaction and catheter-related pain scores (via visual analog scale) were recorded. To determine if rates of bacteriuria differed between groups, no catheter-related antibiotic prophylaxis was given.

**RESULTS:** Sixteen patients in the misoprostol group and 15 patients in the placebo group were analyzed. There were no significant differences between groups with respect to age, race, parity, prior history of hysterectomy, prolapse or anti-incontinence procedure, or BMI. In addition, there were no differences in pre-operative POPQ stage, urodynamic parameters (post-void residual, maximum cystometric capacity, presence of detrusor instability or voiding mechanism), or proportion of anti-incontinence procedures performed (75% treatment vs 53.3% control, p=0.25) between groups. The mean number of days required for catheterization comparing the treatment and placebo groups were 6.8±3.8 vs 13.8±11.7 days (p=0.042). There was also a statistically significant difference in the percentage of patients requiring catheterization for 10 days or longer (6.3% treatment vs 53.3% control, p=0.006) and 14 days or longer (0% vs 46.7%, p=0.002), but no differences at 3 (75% vs 86.7%, p=0.65) and 7 days or longer (31.3% vs 66.7%, p=0.076). Satisfaction scores, pain scores, medication side-effects and rates of bacteriuria did not differ between groups. Complications included pelvic hematoma (2 treatment, 1 control), anemia from intraoperative blood-loss (1 treatment, 2 control), and suprapubic catheter-site cellulitis (2 control).

**CONCLUSION:** The use of oral misoprostol may be effective in decreasing the need for prolonged suprapubic catheterization in the setting of urogynecologic surgery.

**Key Words: surgery, urogynecologic, suprapubic catheter, misoprostol, randomized trial**

Disclosure - Consultant: Mickey M. Karram, Gynecare, Indevus, Ortho-McNeil, Watson, Steven D. Kleeman, AMS, Boston-Scientific; Grant/Research Support: Mickey M. Karram, AMS, Gynecare, Astellas; Speaker Bureau: Mickey M. Karram, Eli-lily, Gynecare, Indevus, Ortho-McNeil, Watson, Steven D. Kleeman, Pfizer.

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ORAL POSTER 5

**Anatomical Path of the Tension-Free Vaginal Tape: Reassessing Current Teachings**

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**OBJECTIVES:** To reevaluate the anatomic path of the tension-free vaginal tape (TVT) and to challenge the current description which implies that the TVT needle pierces the perineal membrane, previously known as the urogenital (UG) diaphragm.

**MATERIALS AND METHODS:** Detailed dissections of the anterior perineal triangle, retropubic space, and periurethral structures were performed in 16 unembalmed female cadavers following placement of a TVT device. The relationship of the TVT mesh to the perineal membrane was noted. Following excision of this membrane and identification of the compressor urethrae and urethrovaginal sphincter, the location of the mesh to these periurethral muscles was recorded. The position of the TVT sling underlying the urethra (mid vs upper) was noted. Finally, the location of the tape with respect to the arcus tendineus fascia pelvis (ATFP) was identified.

**RESULTS:** The perineal membrane is the name now used to describe what used to be known as the UG diaphragm. This membrane is the triangular sheet of dense, fibromuscular tissue which forms the inferior portion of the anterior pelvic floor. It attaches to the ischiopubic rami laterally and to the urethra, vaginal walls and the perineal body medially. The Terminologia Anatomica has deemed the UG diaphragm a misnomer after confirmation that the muscles that lie above the perineal membrane (previously known as the deep transverse perineal muscles) are not enclosed between two layers of fascia. These muscles, now known as the compressor urethrae and urethrovaginal sphincter, lie just above the perineal membrane and are continuous superiorly with the pelvic cavity. However, the term UG diaphragm continues to be used in classic textbooks and appears in the description of the TVT procedure provided with the device. This leads to perpetuation of information that is incorrect and confusing to students and pelvic surgeons.

In all cadavers, the attachment of the perineal membrane to the vaginal walls was at the level of the hymeneal remnant. In 100% of specimens, the entire path of the TVT device remained cephalad to the perineal membrane. The TVT mesh clearly perforated the urethrovaginal sphincter muscle in two of the specimens. The mesh passed lateral to the ATFP and perforated the pubococcygeus muscle in 4 (25%) of the cadavers. In the remaining 12 (75%) specimens, the mesh was medial to the ATFP and penetrated the periurethral connective tissue. In the majority of cadavers, the mesh lay beneath the area of the mid urethra. However, in two cadavers, the mesh was found under the proximal third of the urethra. Bladder perforation was noted unilaterally in one cadaver.

**CONCLUSION:** In this series of 16 unembalmed cadavers, the path of the TVT needle was consistently cephalad to the perineal membrane (UG diaphragm). Therefore, the statement regarding perforation of the UG diaphragm provided in the TVT instructions should be revised to state that the needle pierces the periurethral tissue prior to exiting through the anterior abdominal wall. The location of the tape in reference to the periurethral muscles, ATPF, and urethra was variable. Clinical studies that correlate TVT mesh location to patient outcomes may warrant consideration.

**Key Words:** tension-free vaginal tape, perineal membrane, urogenital diaphragm, anatomy

Disclosure - Research Support: Joseph I. Schaffer, Cook OB/GYN; Research Support, Speaker Bureau: Joseph I. Schaffer, Eli Lilly; Speaker Bureau: Joseph I. Schaffer, Yamanouchi, Joseph I. Schaffer, Glaxo Smith Kline.

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#### ORAL POSTER 6

##### **Robotic Hysterectomy**

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**OBJECTIVES:** The purpose of this study was to describe surgical times and patient outcomes in women who underwent robotic hysterectomy.

**MATERIALS AND METHODS:** Retrospective chart review of 70 patients who underwent a robotic (daVinci Surgical System, Intuitive Surgical, Inc., Sunnyvale, CA) hysterectomy (RH), with or without unilateral (USO) or bilateral (BSO) salpingo-oophorectomy, and with or without concomitant appendectomy (appy) from March 2004 and June 2005. Total operating time (time from skin incision to skin closure), console time (time to perform the procedure with robotic assistance), docking time (time to advance the robot to the bedside and attachment of the robotic arms to the patient), intra-operative complications, and post-operative course were evaluated.

**RESULTS:** Main indications for the surgery were menorrhagia (44%) and benign ovarian neoplasm (21%). The total operating time (mean  $\pm$  SD in minutes) for patients who underwent a RH $\pm$ USO/BSO (N=35) and RH $\pm$ USO/BSO+appy (N=34) were 129  $\pm$  41 and 122  $\pm$  26, respectively. The console time (mean  $\pm$  SD in minutes) for patients who underwent a RH $\pm$ USO/BSO (N=32) and RH $\pm$ USO/BSO+appy (N=30) were 71  $\pm$  26 and 71  $\pm$  27, respectively. The docking time (mean  $\pm$  SD) was 3.2  $\pm$  1.9 minutes. There were no conversions to conventional laparoscopy or laparotomy. Intra-operative complication involved one enterotomy which was repaired robotically. There was only one major post-operative complication (ICU admission secondary to congestive heart failure). Minor post-operative complications included 4 mild port-site infections and 1 trocar-site neuropathy.

**CONCLUSION:** This study suggests that robotic hysterectomy can be performed with acceptable operating times and complications. Future studies comparing conventional laparoscopic hysterectomy and robotic hysterectomy should be performed to further evaluate patient outcomes and costs.

**Key Words: laparoscopy, hysterectomy, robot**

Disclosure - Nothing to disclose.

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ORAL POSTER 7

**Vaginal Paravaginal Repair With Porcine Dermis for the Correction of Advanced Stage Two or Greater Prolapse**

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**OBJECTIVES:** To determine the efficacy of vaginal paravaginal repair (VPVR) using porcine dermis in the correction of anterior vaginal prolapse in patients with advanced stage 2 or greater prolapse.

**MATERIALS AND METHODS:** One hundred and eleven women underwent VPVR with porcine dermis between September 2001 and January 2004 and met our inclusion criteria of having a pre-operative Ba  $\geq 0$ , which we defined as advanced stage 2 prolapse. All patients were evaluated pre-operatively with a detailed history and physical examination, utilizing the pelvic organ prolapse quantification system (POP-Q). Surgical technique involved wide dissection bilaterally to the arcus tendineous fascia pelvis (ATFP) with attachment of the graft to the ATFP. Post-operatively, patients were evaluated at 6 weeks, 6 months and yearly thereafter again with the POP-Q system. Cure was defined as point Ba  $\leq -1$ . A patient was not considered cured until they were followed at least 12 months postoperatively; failures could be reported at any post-operative time period with last observation carried forward (LOCF) as a failure.

**RESULTS:** Eighty-nine of the 111 women were available for post-operative assessment (80%). The mean age of the women was  $59.5 \pm 11.6$  years (range 26-82), mean body mass index was  $29 \pm 5.5$  (range 20-44) and median parity was 3 (range 0-15). Sixty-two percent were Caucasian, 23% Hispanic and 2% African American. Fifteen percent had undergone prior pelvic reconstructive surgery. The mean follow-up was  $21 \pm 8.7$  months (range 6-42). For the entire sample, mean pre-operative Ba was  $+2.17 \pm 2.3$ ; mean post-operative Ba was  $-1.6 \pm 1.7$  ( $p=0.000$ ). Overall cure rate was 76% (68/89). Fifteen of 89 (16.8%) developed granulation tissue post-operatively which represented vaginal wound separation with exposure of the porcine dermis. All cases healed with office conservative management. Data was analyzed using Wilcoxon Rank Test.

**CONCLUSION:** The VPVR using porcine dermis is a safe and effective procedure for advanced stage 2 or greater anterior vaginal prolapse.

**Key Words: porcine dermis, anterior prolapse, paravaginal repair**

Disclosure - Consultant: Karl M. Lubert, Pfizer, Lilly, Watson, Indevus; Instructor: Amanda J. Simsiman, Boston Scientific; Speaker: Shawn A. Menefee, Boston Scientific, Lilly.

Point Ba	Pre-operative N=89	Post-operative N=89
≤-3		36 (40%)
-2		25 (28%)
-1		7 (7.8%)
0	34 (38%)	11 (11.6%)
+1	7 (7.8%)	3 (3.2%)
+2	12 (13.4%)	4 (4.4%)
+3	16 (18%)	2 (2.2%)
≥+4	20 (22.4%)	1 (1.1%)

Pre-operative Ba	Mean post-operative Ba	Sig
0	-2.0 ± 1.3	0.000
+1	-2.0 ± 1.1	0.017
+2	-2.2 ± 1.4	0.002
+3	-1.4 ± 1.9	0.001
≥+4	-0.6 ± 2.1	0.000

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ORAL POSTER 8

**Laparoscopic and Open Burch Colposuspension. Case-Cohort Study Using Subjective and Objective Criteria**

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**OBJECTIVES:** To compare objective and subjective medium-term cure rates of intraperitoneal laparoscopic colposuspension with that of open Burch colposuspension.

**MATERIALS AND METHODS:** All Burch colposuspension cases (n=90) done between January 1, 1997, and January 1, 2001 were reviewed. A case cohort study was used to compare cases of transperitoneal laparoscopic (n=24) with open Burch colposuspension (n=23) performed during this same time period. Cure rate was assessed by physical exam, urodynamic evaluation and validated questionnaires (IIQ and UDI). Results were analyzed statistically.

**RESULTS:** In the case-cohort study (Table 1), the mean times to follow-up were 31.2 months (range 15-72). At last follow-up, 21 of 24 (87.5%) of the laparoscopic and 20 of 23 (87%) of the open Burch colposuspension group were continent by urodynamic evaluation and standing cough stress test. Subjective cure rate was similar between

groups and correlated with objective findings. POP-Q findings were similar in both cohorts. In the retrospective review of all 90 patients, estimated blood loss was higher (570 mL vs. 177 mL,  $p<0.05$ ), hospital stay was longer (3.7 days vs. 1.9 days,  $p<0.05$ ), and hospital charges were higher in the open group (\$7,735 vs. \$5,874,  $p<0.05$ ).

**CONCLUSION:** Transperitoneal laparoscopic colposuspension, compared with open Burch colposuspension, resulted in similar medium-term cure rates. Complications and hospital stay, as well as cost, were greater in the open Burch patients. Laparoscopic colposuspension is a reasonable option for treating stress urinary incontinence when a minimally invasive alternative to open surgery is desired.

**Key Words:** stress incontinence, urethropexy, laparoscopic, medium-term outcome

Disclosure - Advisory Board: A Bent, Eli Lilly, ACMI; Preceptor: J Dunn/M Ellerkmann, Boston Scientific/Gynecare; Research support: M Ellerkmann, A Bent, Cook Ob/Gyn, AMS, Gynecare; Research support/Consultant: A Bent, Eli Lilly, Q-Med, CR Bard; Speaker Bureau: A Bent, Pfizer, Novartis, Watson, Eli Lilly; Speaker bureau/Consultant: M Ellerkmann, Pfizer, Gynecare, AMS, Novartis.

Table 1. Case cohort post-operative findings

Category	Lap Burch N=24	Open Burch N=23	P value
Age	54.1	56.4	>0.05
Post op (mos)	28.3	35.6	0.048*
Q-tip angle	14.1	11.5	0.79
Leak (CMG)	N=3	N=2	
Leak (Stand)	N=2	N=3	
DI (CMG)	N=2	N=3	
IIQ-7	2.08	2.68	0.50
UDI-6	3.79	4.29	0.91
POP-Q Exam			
Aa	-1.79	-2.04	0.41
Ap	-1.83	-2.09	0.40
C	-3.52	-3.48	0.98
GH	4.46	3.85	0.15
PB	3.71	3.89	0.60
TVL	7.95	8.17	0.55

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ORAL POSTER 9

**Long-Term Functional and Anatomical Outcome Following Sacrospinous Fixation**

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**OBJECTIVES:** The objective of our study is to evaluate the long-term efficacy and complications of sacrospinous ligament fixation for the repair of vaginal vault prolapse or uterovaginal prolapse.

**MATERIALS AND METHODS:** Five hundred and seventy eight patients who had sacrospinous ligament fixation for vaginal vault or utero-vaginal prolapse between January 1991 and October 2000 at Temple University Hospital were identified from the computerized medical records database. Their charts were reviewed to determine the demographic characteristics, co-morbid medical conditions, pre-operative severity of prolapse, and peri/post operative complications. Subjects were invited to return for a study visit to evaluate long-term efficacy and complications. Functional outcomes were evaluated using quality of life questionnaires including pelvic floor distress inventory short form 20 (PFDI), pelvic floor impact questionnaire short form 7 (PFIQ), and pelvic organ prolapse/ urinary incontinence sexual function questionnaire (PISQ-12). Patient satisfaction with surgery was assessed by Patient Global Impression of Severity (PGI-S) and Patient Global Impression of Improvement (PGI-I) questionnaires. Anatomical failure was defined as prolapse greater than stage two by pelvic organ prolapse quantification (POP-Q) system.

**RESULTS:** Fifty-one patients returned for follow-up study visit. Mean follow-up was 82 months. About 90% had mass per vagina (grade 3 or 4) involving at least one compartment pre-operatively. Two thirds of subjects had vault prolapse while in the remaining hysterectomy was performed at the time of sacrospinous fixation. The primary anti-incontinence procedure used was periurethral fascial sling urethropexy. Common intra-operative complications included blood loss requiring transfusion (12%), bladder injury (5%), and urinary retention (5%). Apical failure was noted in 4%. Average vaginal length was 6.98cm and there was no significant deviation of vaginal axis. However high rate of anterior compartment failure (32%) and incontinence symptoms (33%) were noted. Forty six percent of subjects were not sexually active due to partner related issues and the mean PISQ score in the remaining was 10.8.

**CONCLUSION:** Sacrospinous fixation is an effective procedure for apical prolapse. Both functional and anatomical outcomes were satisfactory. Concomitant anti-incontinence procedure and anterior wall support may be indicated to prevent future cystocele and stress urinary incontinence.

**Key Words:** vault prolapse, sacrospinous fixation, long-term outcome, functional outcome

Disclosure - consultant: Ozgur H Harmanli, AMS.

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ORAL POSTER 10

**Objective Outcomes from the Use of Tutoplast Cadaveric Fascia Lata Allograft for the Surgical Treatment of Posterior Vaginal Wall Prolapse**

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**OBJECTIVES:** The objective of this study was to demonstrate the safety and objective outcomes of Tutoplast cadaveric fascia lata allograft in the surgical treatment of posterior vaginal wall defects.

**MATERIALS AND METHODS:** After receiving IRB approval, surgical logs of all patients who underwent surgery for pelvic organ prolapse by the two primary authors (KK and AM) from January 2001 to June of 2005 were reviewed for possible inclusion. Only those patients who received a Tutoplast fascia lata allograft placed vaginally for the treatment of a posterior vaginal wall defect and had at least one follow up postoperative exam were deemed eligible for inclusion. Grafts were constructed out of a 6 x 8 cm piece of fascia lata and placed vaginally to augment and/or replace inherent tissue by attachment to the vaginal apex or uterosacral ligaments, vaginal side walls and distal rectovaginal fascia or perineal body. Fifty-six patients were identified that qualified for inclusion. The clinic charts, operative reports and discharge summaries were reviewed for pertinent data. Any patient with less than 6 months follow up data was contacted by mail and/or phone and asked to return for a pelvic exam utilizing the Pelvic Organ Prolapse Quantitative (POP-Q) exam and interview to determine any intervening complications, symptomatic recurrence, or subsequent surgery. All preoperative and postoperative exams were performed using the POP-Q segmental pelvic exam. Surgical cure was defined when both Ap and Bp points were less than -1 (less than Stage 2) and the patient reported no symptomatic posterior vaginal wall prolapse.

**RESULTS:** Mean age of the 56 patients who met the inclusion criteria was 60.9 years with a mean number of vaginal deliveries of 2.6. Prior prolapse surgery was reported by 46.4% of patients and 23.2% had specifically undergone a posterior vaginal wall repair. Only 1 patient had previously received a graft. A previous hysterectomy was noted in 85.7% of subjects. During the index surgery, 91.1% of patients underwent some other procedure for prolapse or stress urinary incontinence. Mean and median follow up were 12.6 months and 11.5 months, respectively, with a range of 1.5 to 52 months. There were no intraoperative complications associated with graft placement. Patients tolerated the allograft well with only a single asymptomatic patient who had a small amount of graft removed from the vaginal apex in the office at her 6 week exam. Cure of posterior vaginal wall prolapse was noted in all 56 patients at 6 weeks. Of the thirty-seven patients with POP-Q scores at 6 months, 97.3% were objectively cured. An objective cure rate of 93.9% was noted in the 33 patients with a twelve month or greater follow up. Only one patient in the study cohort has undergone subsequent surgery for recurrent prolapse.

**CONCLUSION:** Tutoplast cadaveric fascia lata allograft appears to be safe and effective in the treatment of posterior vaginal wall prolapse.

**Key Words:** rectocele, prolapse surgery, allograft

Disclosure - Consultant: Kristinell Keil, Gynecare, Andrew McBride, Boston Scientific; Speaker Bureau : Kristinell Keil, Yamanouchi, Ortho McNeil, Pfizer, Odyssey; Speaker Bureau: Andrew McBride, Pfizer.

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ORAL POSTER 11

**Perioperative Complications and Adverse Events of the Monarc Transobturator Tape Compared to the Tension-Free Vaginal Tape**

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**OBJECTIVES:** To compare the incidence of perioperative complications and other adverse events of the Monarc transobturator tape (TOT) to the tension-free vaginal tape (TVT) in women undergoing surgical treatment for stress urinary incontinence.

**MATERIALS AND METHODS:** A retrospective review of all patients undergoing either a TOT or TVT by one of three surgeons (MDB, MFP, MDW) between January, 2003 and August 2005 was performed. The incidence of intraoperative and postoperative ( $\leq 6$  weeks) complications was noted as were relevant long-term adverse events including mesh erosions, need for urethrolisis, use of anticholinergics postoperatively, and reoperations for stress incontinence (including urethral bulking agents). Logistic regression was used to control for baseline differences between groups.

**RESULTS:** 205 women underwent a TOT and 213 women underwent a TVT during the study period. 119 women (28%) underwent a TVT or TOT alone while 299 (72%) received concurrent vaginal reconstructive surgery. There was no significant difference in previous surgical history between groups: 39% of subjects had a history of a previous hysterectomy, 19% had previous prolapse surgery and 22% had a history of prior incontinence surgery. Subjects who received a TOT had a lower BMI (28+5 vs. 29+6 kg/m<sup>2</sup>,  $p=.03$ ) and a greater degree of anterior vaginal wall prolapse (median Ba point +1 (range -3 to +10) vs. 0 (-3 to +8),  $p<.0001$ ) than those who received a TVT; otherwise the baseline characteristics of the two groups were similar and there was no difference in concurrent operative procedures. TVT resulted in a significantly higher rate of bladder perforation than did TOT (11/213 (5%) vs. 0/205 (0%),  $p<.001$ ). No bowel injuries or major vascular injuries were noted in either group. The mean drop in hematocrit and incidence of blood transfusion were not significantly different after adjusting for baseline differences and concurrent surgical procedures. Postoperatively, subjects who received TVT were significantly more likely to require urethrolisis for voiding dysfunction or urinary urgency (15/213 (7%) vs. 3/202 (1.5%),  $p=.003$ ) and more likely to use anticholinergic medications (29/213 (13.6%) vs. 12/205 (6.4%),  $p=.01$ ) than those who received a TOT. The rate of vaginal mesh erosion was low (3/418 (0.7%)) and not significantly different between groups. One patient in each group developed leg/groin pain postoperatively (0.5%) and no subjects developed an obturator neurologic injury. 1.5% of subjects (3/203) in the TOT group and 2.4% (5/213) in the TVT group underwent repeat surgery or bulking agent injection for recurrent stress incontinence during the study period ( $p=NS$ ).

**CONCLUSION:** In women undergoing surgical treatment for stress urinary incontinence, TOT is associated with a lower rate of bladder injury, a decreased incidence of postoperative anticholinergic medication use, and fewer urethrolyses for

postoperative voiding dysfunction or urinary urgency than TVT.

**Key Words: complications, stress urinary incontinence, tension-free vaginal tape, transobturator tape**

Disclosure - Consultant: Marie Paraiso, Gynecare, Marie Paraiso, American Medical Systems, Mark Walters, American Medical Systems; Grant/Research Support: Matthew Barber, American Medical Systems, Matthew Barber, Eli Lilly, Marie Paraiso, Organogenesis.

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ORAL POSTER 12

**Pelvic Organ Prolapse in Nulliparous Women and their Parous Sisters**

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**OBJECTIVES:** Compare the prevalence of pelvic organ prolapse in nulliparous women with corresponding rates in their biological parous sisters.

**MATERIALS AND METHODS:** The Investigational Review Board approved this study. We recruited pairs of postmenopausal biological sisters from the general population. Both sisters had to be postmenopausal, one of the sisters was nulliparous, the other had at least one vaginal delivery. All sister pairs in the study completed a screening questionnaire, that included sections on demographics; past medical, surgical and obstetrical history; and medication use.

The sister pairs underwent physical exams, which included assessment of pelvic organ relaxation using the Baden-Walker system and the POP-Q staging system. Examiners were masked to the parity of study subjects.

Since this was a matched-pair design, variables between parous and nulliparous sisters were compared using the McNemar's test in order to account for possible familial correlation. Chi-square test was performed to examine the degree of association within the pairs. Multivariate logistic regression was used to assess independent risk factors for pelvic organ prolapse.

**RESULTS:** 101 sister pairs completed the physical evaluation. The majority of women showed no pelvic relaxation, regardless of parity status. Comparison of findings on pelvic exam between nulliparous women and their parous sisters by compartment show a 74% to 91% concordance in prolapse stage among sister pairs.

Concordance in prolapse stage among sister pairs was 74.25% in the anterior compartment. In all but two of the discordant pairs, the parous sister had the more advanced prolapse. Comparing findings on exam of the posterior compartment between sister pairs, we noted a concordance of 75.2%. Again, it was the parous sister in 22 of the 25 discordant pairs, who presents with the advanced prolapse stage ( $p < .01$ ). Parity conferred a risk of clinically relevant prolapse of 10% at the apex and close to 25% both at the posterior- and at the anterior vaginal wall.

**CONCLUSION:** We found that the majority of women had no clinically relevant pelvic relaxation, regardless of parity status. The concordance of pelvic relaxation among nulliparous and parous sister pairs was high. In sister pairs with discordant prolapse

stages, parous women had the greater degree of prolapse more than 90% of the time. Parity was an independent risk factor for clinically relevant prolapse. However, we did observe a higher degree of pelvic relaxation in the majority of nulliparous sisters of women with pelvic organ prolapse beyond the hymen, suggesting the idea of familial predisposition for this condition.

**Key Words: pelvic organ prolapse, parity, familiarity, risk factors**

Disclosure - Consultant: GM Buchsbaum, Boston Scientific & Gynecare, LA Kerr, Pfizer & Watson Pharm; Research Support: GM Buchsbaum, Pfizer & Watson Pharm; Speaker: GM Buchsbaum, Pfizer.