11 The effect of anti-incontinence surgery on female sexual function: a combined secondary analysis of the stress incontinence surgical treatment efficacy trial and trial of mid-urethral slings

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OBJECTIVES: To determine the impact of surgery for stress urinary incontinence (SUI) on 24-month postoperative condition-specific sexual function.

MATERIALS AND METHODS: This is a combined secondary analysis of the Trial of Mid-Urethral Slings (TOMUS) and the Stress Incontinence Surgical Treatment Efficacy Trial (SISTEr). SISTEr subjects (Burch colposuspension or Autologous fascial sling) and TOMUS subjects (retropubic or transobturator mid-urethral sling) who completed 24-month postoperative sexual function questionnaire (PISQ-12) were included. PISQ-12 scores were used to compare sexual function between groups at baseline, at 24 months postoperatively and the change in score. Descriptive statistics compared sexual function between the treatment groups and a multivariable model was fit to the data to control for significant baseline differences between treatment groups. Repeated measures ANOVA was used to identify time and treatment effects on sexual function.

RESULTS: A total of 852 participants were included. Baseline differences between treatment groups include race/ethnicity, number of pregnancies and vaginal deliveries, stage of prolapse, and concomitant surgeries (Table 1). On univariate analysis, there was no significant difference between baseline, 24-month and change in sexual function between treatment groups (Table 2). Surgical treatment group was not associated with 24-month sexual function on multivariate analysis after adjusting for differences between groups, however objective failure rate was an independent predictor of postoperative sexual function. There is a significant improvement in sexual function over the 2 years following anti-incontinence surgery, but there is no treatment effect attributed to surgery type on repeated measures ANOVA (Figure 1).

CONCLUSION: Women who are sexually active and undergoing surgical treatment for stress urinary incontinence have improved sexual function at 24 months postoperatively with no differences attributed to type of anti-incontinence surgery.

DISCLOSURE OF RELEVANT FINANCIAL RELATIONSHIPS: Stephanie Glass Clark: Nothing to disclose; Lauren N. Siff: Nothing to disclose.

Table 1. Demographics

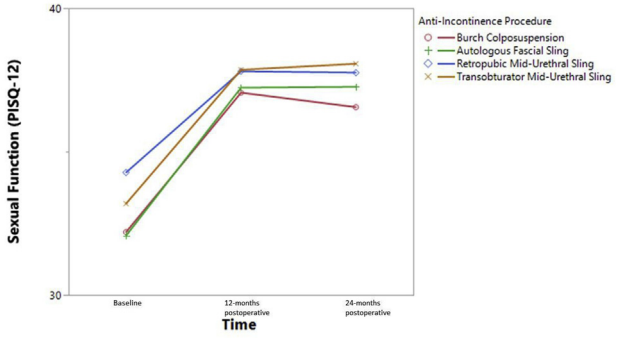
Variable	Burch Colposuspension	Autologous Fascial Sling	Retropubic Mid-Urethral Sling	Transobturator Mid-Urethral Sling	*p value*
Age	51.7 (10.5)	51.1 (10.0)	52.7 (10.5)	53.1 (11.5)	0.08
BMI	29.7 (6.1)	30.3 (6.1)	30.6 (7.0)	30.0 (6.5)	0.33
Race/Ethnicity:					
Hispanic	30 (9%)	42 (13%)	33 (11%)	38 (13%)	
Non-Hispanic white	247 (75%)	233 (71%)	240 (81%)	233 (78%)	**0.005**
Non-Hispanic black	16 (5%)	28 (9%)	8 (3%)	9 (3%)	
Non-Hispanic other	35 (11%)	23 (7%)	17 (6%)	19 (6%)	
Married or living as married	229 (70%)	220 (67%)	203 (65%)	209 (70%)	0.90
Pregnancy history:					
Ever pregnant	322 (98%)	311 (95%)	286 (96%)	286 (96%)	0.29
No. of pregnancies (median, range)	3 (0-12)	3 (0-11)	3 (0-12)	3 (0-10)	**0.04**
No. of vaginal deliveries (median, range)	2 (0-10)	3 (0-8)	2 (0-7)	2 (0-7)	**0.001**
Smoking status:					
Ever smoker	135 (41%)	165 (51%)	140 (47%)	138 (46%)	0.10
Current smoker	39 (12%)	54 (17%)	44 (15%)	36 (12%)	0.25
Menopausal	234 (71%)	223 (68%)	209 (70%)	206 (69%)	0.57
Prior incontinence surgery	50 (51%)	43 (13%)	38 (13%)	41 (14%)	0.83
Stage of Prolapse					
0	15 (5%)	15 (5%)	28 (9%)	23 (8%)	
1	70 (21%)	62 (19%)	102 (34%)	114 (38%)	
2	195 (49%)	192 (59%)	144 (48%)	138 (46%)	**<0.001**
3	43 (13%)	44 (13%)	18 (6%)	18 (6%)	
4	6 (2%)	13 (4%)	6 (2%)	6 (2%)	
Any concomitant surgery	184 (55.9%)	196 (60.1%)	73 (24.5%)	78 (26.1%)	**<0.001**

Table 2. Sexual Function

Measure of Sexual Function	Burch Colposuspension	Autologous Fascial Sling	Retropubic Mid-Urethral Sling	Transobturator Mid-Urethral Sling	*p value*
Baseline PISQ-12	31.9, 31.0-32.8, 220	31.4, 30.5-32.3, 227	33.1, 32.1-34.0, 201	32.6, 31.6-33.5, 204	0.08
PISQ-12 at 24-months	36.7, 35.8-37.6, 154	37.4, 36.5-38.3,167	37.1, 36.1-38.0, 148	37.7, 36.7-38.7, 144	0.50
PISQ-12 Change (Baseline to 24-months)	4.3, 3.3-5.2, 142	5.1, 4.2-6.0, 152	3.4, 2.5-4.4, 138	4.7, 3.7-5.7, 135	0.08

*Shown are means, 95% confidence intervals, n

Figure 1



12 Six-month urinary incontinence outcomes in women undergoing endometrial cancer surgery with concomitant surgery for stress urinary incontinence, non-surgical incontinence treatment, and endometrial cancer surgery alone: the cancer of the uterus and treatment of incontinence (CUTI) study

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OBJECTIVES: To evaluate incontinence severity and patient reported outcomes (PROs) of women undergoing concomitant surgical treatment of early stage endometrial cancer and stress urinary incontinence (SUI) compared to women who chose cancer surgery with non-surgical treatment of incontinence, and to women choosing cancer surgery alone.

MATERIALS AND METHODS: Secondary analysis of a large multi-center, prospective cohort study conducted across eight US sites. Women with endometrial epithelial neoplasia (EIN) or clinical stage I/II endometrial cancer were screened for SUI at their oncology appointment. Those screening positive for SUI were eligible for enrollment and were offered a referral to a urogynecologist. As clinically appropriate, women were offered SUI surgery to be performed at the time of their cancer surgery. SUI severity was assessed using the Sandvik Severity Index (SSI) at baseline, 6 weeks, and 6-months post-op. PROs were assessed with the Urogenital Distress Inventory, and the Incontinence Impact Questionnaire (IIQ). Scores were compared by group and time using Chi-square, Kruskal-Wallis, and Friedman tests. Multivariable logistic regression with generalized estimating equations was used to examine the relationship between SUI treatment group and absence of incontinence symptoms (score = zero), adjusting for baseline demographic and clinical factors.

RESULTS: Of 509 eligible women, 107 (21%) chose concomitant SUI surgery with their cancer surgery, 96 (19%) chose non-surgical SUI treatment with cancer surgery and 306 (60%) chose cancer surgery alone. At 6-months post-operatively, after adjusting for baseline demographic and clinical factors, the odds of no distress (0 UDI-Stress score) were significantly higher for the concomitant surgery group compared to the non-surgical group (OR=2.8, p=0.0001) or compared to the no treatment group (OR=3.7, p<0.0001) (Figure 1). Additionally, the odds of continence (0 SSI score) were significantly higher for the concomitant surgery group compared to the non-surgical group (OR 2.9, p=0.0008) or compared to the no treatment group (OR=2.7, p<0.0001). SSI scores of "severe" or "very severe" decreased from 57% to 14% in the concomitant group (p<0.0001) (Figure 2). There were no differences between the groups in the IIQ (Figure 3).

CONCLUSION: Patients undergoing concomitant surgery for SUI and endometrial cancer are more likely to report no leakage or bothersome symptoms compared to women choosing non-surgical treatment for SUI or cancer surgery alone. Women with early stage endometrial cancer and EIN commonly have SUI, and concomitant surgical treatment should be considered as a treatment option.

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