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LEFORT COLPOCLEISIS AND STRESS INCONTINENCE: WEIGHING THE RISK OF VOIDING DYSFUNCTION AGAINST SLING PLACEMENT

Hypothesis / aims of study

The elderly patient with severe pelvic organ prolapse, stress incontinence (SUI) and significant voiding dysfunction (VD) commonly presents a management dilemma for the pelvic surgeon. Many will forego sling placement at the time of colpocleisis due to a reported sling revision rate as high as 14% [1]. Our primary aim was to evaluate clinical outcomes of concomitant sling placement with Leforte colpocleisis, including its effect on postoperative voiding.

Study design, materials and methods

We performed a retrospective review of all patients who underwent Leforte colpocleisis at our institution from January 2001-December 2009. Data gathered included patient demographics, urinary symptoms (complaint of stress or mixed urinary incontinence, total incontinent events/day, total pads/day), urodynamic parameters, and concomitant sling (retropubic vs transobturator). Postoperative subjective urinary symptoms and assessment of voiding function were analyzed. Voiding dysfunction (VD) was defined as presence of both of the following after 6 weeks postop:

- postvoid residual (PVR) ≥ 100cc
- self-reported abnormal voiding

Statistical analysis included Wilcoxon rank sums, and Chi-squared/Fisher's exact where appropriate.

Results

210 patients underwent colpocleisis during the study period. Mean age was 82.2 ± 4.9. Median time of follow up was 22 weeks (10.5-51.5). 73 patients complained of stress urinary incontinence symptoms, 60 of which were confirmed on urodynamic testing. An additional 105 patients were diagnosed with occult SUI**.** 61% (101/165) had intrinsic sphincteric deficiency. 56 patients had preoperative voiding dysfunction. 161/165 patients with a diagnosis of SUI on urodynamics underwent concurrent suburethral sling. 91 retropubic (RP) slings and 70 transobturator (TO) slings were placed.

Table 1: Preoperative and postoperative urinary outcomes

	Occult SUI				**Overt SUI**			
	RP (n=55)		**TO** (n=47)		**RP** (n=36)		**TO** (n=23)	
	PREOP	POSTOP	PREOP	POSTOP	PREOP	POSTOP	PREOP	POSTOP
c/o SUI or MUI (n)	0	3	0	4	36	**2***	23	**3***
Incontinence/day (mean & SD)	1.4 (±1.8)	**0.8*** (±1.4)	0.6 (±1.3)	0.5 (±1.1)	3.1 (±1.8)	**1.2*** (±1.4)	3.1 (±1.6)	**1.3*** (±1.7)
Pads/day (mean & SD)	1.3 (±1.2)	0.9 (±1.1)	1.1 (±1.1)	**0.6*** (±1.0)	2.2 (±1.1)	**1.5*** (±1.2)	2.1 (±0.9)	**0.7*** (±1.1)
PVR cc (median & IQR)	70 (40-130)	**40*** (25-60)	95 (44-140)	32 (20-62)	110 (30-160)	**31.5*** (18-68)	70 (45-170)	**39*** (9-53)
VD (n)	12	**2***	14	**4***	8	**0***	7	**0***

***p<0.05 using Wilcoxon matched-pairs signed rank for continuous data or Fisher's exact for categorical data.**

40 of the 56 patients with preoperative VD, had a sling placed for incontinence. Overall, there was resolution of VD in 91% of patients, with only 2 having persistent VD requiring intermittent self-catheterization. 2 patients were diagnosed with de novo voiding dysfunction following sling placement. One patient required surgical revision of a RP sling.

Interpretation of results

Our retrospective analysis of advanced prolapse patients undergoing Leforte colpocleisis demonstrated a significantly high overall rate of stress incontinence (78.5%) with an occult stress incontinence rate of 50%. Only 2 patients who were screened negative for occult SUI developed symptoms postoperatively. Sling placement at the time of Leforte colpocleisis resulted in a 92.5% success rate measured by subjective outcomes. Baseline voiding dysfunction did not significantly affect the decision for sling placement and overall these patients showed resolution of VD (91%). The rate of de novo voiding dysfunction (1.2%) and sling revision (0.6%) were low.

Concluding message

Leforte colpocleisis patients have a high rate of stress incontinence. Concomitant sling placement results in improved patient continence rates with minimal risk of postoperative voiding dysfunction.

References

1. FitzGerald MP, Brubaker L Colpocleisis and urinary incontinence. Am J Obstet Gynecol 2003;189:1241-1244.

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Was this study approved by an ethics committee?	**Yes**
Specify Name of Ethics Committee	**Cleveland Clinic Florida Institutional Review Board**

Was the Declaration of Helsinki followed?	**Yes**
Was informed consent obtained from the patients?	**Yes**