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PREOPERATIVE URINARY HESITANCY IS ASSOCIATED WITH SURGICAL FAILURE AND POSTOPERATIVE VOIDING DYSFUNCTION FOLLOWING BURCH COLPOSUSPENSION OR PUBOVAGINAL RECTUS FASCIAL SLING SURGERY

Purpose: The aims of this study were to assess whether preoperative subjective voiding symptoms are associated with postoperative voiding dysfunction and/or postoperative surgical failure in women who underwent treatment of stress urinary incontinence (SUI) with Burch colposuspension (BC) or pubovaginal sling (PVS).
Methods: Data were obtained from subjects in a randomized trial comparing efficacy of PVS to BC. The methods, primary outcomes and definitions for the surgical outcomes of "overall" and "stress-specific" failures have been previously reported [1, 2]. In addition to the Urogenital Distress Inventory (UDI) , preoperative voiding symptoms were assessed by subjects' categorical responses (yes or no) to physical accommodations to facilitate voiding (straining, bending, leaning, standing, pressing, pushing, and doing something else to urinate), and characteristics of urinary stream (steady, slow, spurting, hesitating, dribbling, or other descriptor of urinary stream). Voiding dysfunction was defined as either the need for surgical revision to improve voiding postoperatively or the need for catheterization due to voiding difficulties at any time after 6 weeks following surgery. Logistic regression analysis controlling for treatment group and site was used to evaluate the associations between treatment failure and voiding function and UDI.
Results: The prevalences of the preoperative physical accommodations and characteristics of urinary stream are listed in the Table. The percentages listed in the Table represented those subjects who answered "yes" to the question regardless of how they answered other questions. Urinary hesitancy was the only preoperative symptom associated with overall treatment failure [OR 1.57 (95% CI 1.04-2.38, p=0.03)], stress-specific failure [OR 1.67 (95% CI 1.14-2.45, p=0.009)] and postoperative voiding dysfunction [OR 2.22 (95% CI 1.19-4.16, p=0.01)]. While there was no significant association between preoperative UDI obstructive subscore and postoperative voiding dysfunction [OR 1.03 (95% CI 0.89-1.18, p=0.71)], an increase of 10 points on the preoperative UDI-obstructive subscore was associated with stress specific failure [OR 1.21 (95% CI 1.10-1.32, p<0.0001)] and overall failure [OR 1.10 (95% CI 1.00-1.20, p=0.049).

Preoperative voiding symptoms	**No. Who Answered "Yes"**	**% (n=651)**
Dribbling Stream	504	77.4
Hesitating Stream	214	32.9
Spurting Stream	208	32.0
Slow Stream	207	31.8
Bending to Urinate	179	27.5
Straining to Urinate	107	16.4
Steady Stream (No)	106	16.3
Pressing to Urinate	81	12.4
Leaning to Urinate	54	8.3
Other descriptions of Stream	49	7.5
Pushing to Urinate	41	6.3
Doing something else to Urinate	29	4.5
Standing to Urinate	22	3.4

Interpretation of results

Preoperative symptom of urinary hesitancy may be a useful predictor of post-operative outcomes. The prevalence of this complaint is moderate (33%) which may make it more useful as a predictor of surgical outcomes than a preoperative voiding complaint should that is very common (like dribbling at 78%) or very uncommon (like pushing to urinate at 6%) The findings of this secondary analysis suggest that further studies into association of urinary hesitancy and postoperative outcomes may be a fruitful area for further study.

Concluding message

Patients who report urinary hesitancy or obstructive voiding symptoms prior to a Burch colposuspension or fascial sling may benefit from counselling regarding an increased risk of post-operative voiding dysfunction and/or failure of the continence surgery.

Topic

Surgical treatment of stress urinary incontinence
LUTS in women

Key words

postoperative voiding dysfunction, stress urinary incontinence, Burch, fascial pubovaginal sling

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Is this a clinical trial?	**Yes**
Is this study registered in a public clinical trials registry?	**Yes**
Specify Name of Public Registry, Registration Number	**www.clinicaltrials.gov (NCT00064662)**
What were the subjects in the study?	**HUMAN**
Was this study approved by an ethics committee?	**Yes**
Specify Name of Ethics Committee	**Univ of MD Baltimore, UTSA, UTSW, Beamont, Univ of Alabama Birmingham, UCSD, UPitt, Univ of Utah, Loyola Univ, NERI**
Was the Declaration of Helsinki followed?	**Yes**
Was informed consent obtained from the patients?	**Yes**