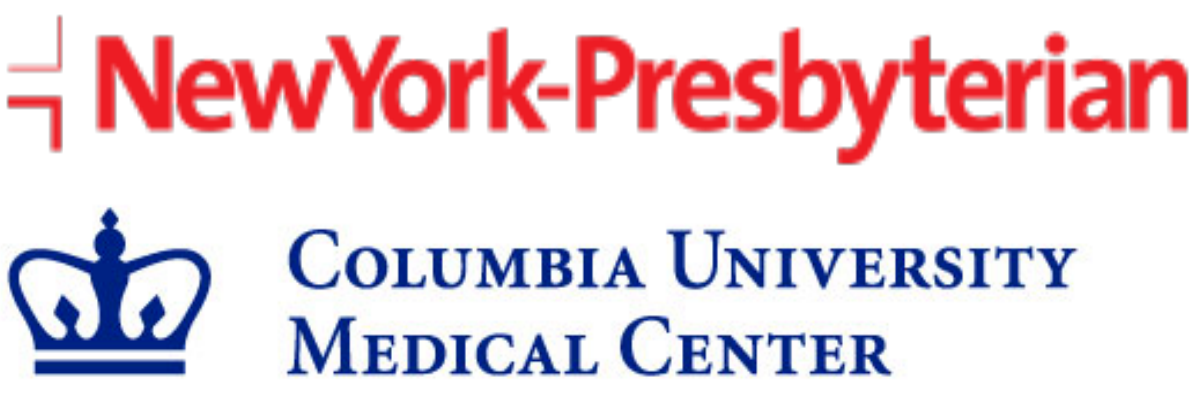


DIFFERENCES BETWEEN MID-URETHRAL SLING OUTCOMES IN DIABETIC AND NON-DIABETIC WOMEN: DO DIFFERENCES EXIST?



Doreen E. Chung¹, Denise Umpierrez-Morley¹, Danielle D. Antosh², Zonia Barbosa², Marguerite Susich¹, Cara L. Grimes¹
for the Collaborative Research in Pelvic Surgery Consortium 1 Columbia University Medical Center; 2 Houston Methodist Hospital



INTRODUCTION

- Diabetic cystopathy has been described as increased bladder capacity, impaired detrusor contractility, and incomplete bladder emptying (Ellenberg, 1980).
- Results from more contemporary studies have been conflicting as to whether or not this phenomenon actually exists.
- Few studies have looked at outcomes of diabetes on voiding function following surgery.

OBJECTIVE

- The objective was to compare post-void residual and outcomes following mid-urethral slings.

METHODS

- A multi-center retrospective study was done.
- Patients were identified who underwent mid-urethral sling (MUS) placement (January 2012- September 2016).
- For analysis T-test, Mann-Whitney, Fisher’s Exact, and chi-square tests were done (p<0.05 significant).
- Baseline demographics, pre-operative voiding parameters, post-void residual volume (PVR), and complications were recorded.
- DM was characterized by treatment type, duration, and HbA1C.

RESULTS

- 551 patients were identified (all type 2)
 - 60 (10.9%) had DM
 - 491 (89.1%) did not have DM

RESULTS

- Mean HbA1C was 6.83 ± 0.92%.
- Treatment of Diabetic Patients
 - Diet control 4 (6.7%)
 - Oral medication alone 43 (71.6%)
 - Insulin-dependent 4 (6.7%)
- No differences between groups in race (p=0.314), sling type (p=0.274), or EBL (116.0 ± 114.2 vs. 97.2 ± 101.8 mL, p =0.185)
- Similar rates of UTI (11.7% vs. 6.7%, p=0.230) and sling revision (1.6% vs. 1.6%, p=0.701) were observed in women with and without DM.

Table 1. Baseline Characteristics and Urodynamic Parameters

| | DM (n = 60) | Non DM (n = 551) | P-value |
|--------------------------|----------------|---------------------|---------|
| Age (years) | 65.5 ± 8.0 | 55.6 ± 13.1 | <0.005 |
| BMI | 30.7 ± 7.0 | 27.9 ± 6.0 | 0.001 |
| Urgency Incontinence (%) | 37 (61.7) | 274 (49.7) | 0.752 |
| Urgency (%) | 41 (68.3) | 310 (56.30) | 0.258 |
| Straining (%) | 15 (25.0) | 86 (15.6) | 0.228 |
| UDS Parameters | | | |
| PVR (mL) | 59.5 ± 84.4 | 47.7 ± 70.9 | 0.099 |
| MCC (mL) | 473.0 ± 134 | 445.8 ± 163.3 | 0.096 |
| Pdet at Qmax (cm H2O) | 22.8 ± 14.1 | 23.34 ± 25.0 | 0.427 |
| Qmax (mL/s) | 19.8 ± 11.4 | 21.8 ± 11.9 | 0.634 |
| Valsalva voiding (%) | 26 (43.0) | 120 (24.0) | 0.039 |

RESULTS

Table 2. Postoperative Emptying

| | DM | Non DM | P-value |
|--------------------------------|---------------|---------------|---------|
| Passed TOV within 24h (%) | 48 (80%) | 386 (70%) | 0.788 |
| PVR at discharge (mL) | 146.9 ± 220.9 | 147.4 ± 218.7 | 0.989 |
| Mean change in PVR Postop (mL) | 63.63 ± 197 | 62.6 ± 183.7 | 0.396 |

DISCUSSION

- Strength of this study include large number of subjects, multi-center study
- Limitations are retrospective nature of study, limited data on diabetes such as duration, fact that disease was well-controlled in subjects (HbA1C 6.83%)

CONCLUSIONS

- In this population no differences in baseline or postoperative PVR were seen in patients with and without DM following MUS placement.
- Although we did not find objective evidence for the influence of DM on surgical outcomes of MUS, further studies are needed to investigate the effect of the disease on subjective outcomes.

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