

# BASELINE AND POST MID-URETHRAL SLING OUTCOMES IN DIABETIC VERSUS NON-DIABETIC WOMEN

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## BACKGROUND: TOMUS

The Trial of Mid-Urethral Slings (TOMUS) (NCT00325039) was a multicenter, randomized equivalence trial conducted by the Urinary Incontinence Treatment Network (UITN) between 2006 and 2008 to compare subjective and objective success rates for urinary incontinence (UI) at 12 and 24 months following retropubic and transobturator mid-urethral sling (MUS) procedures. Secondary aims were to compare the resolution of overall and stress-specific UI, morbidity, the time to adequate voiding, satisfaction, and quality of life in the 2 groups (UITN, 2008).

## OBJECTIVE

- Diabetes mellitus (DM) can lead to voiding dysfunction, including increased bladder capacity, impaired detrusor contractility, and incomplete bladder emptying (Ellenberg, 1980).
- **The objective was to examine the effect of DM on post-void residual (PVR) and lower urinary tract symptoms after mid-urethral sling placement using data from the Trial of Midurethral slings (TOMUS).**

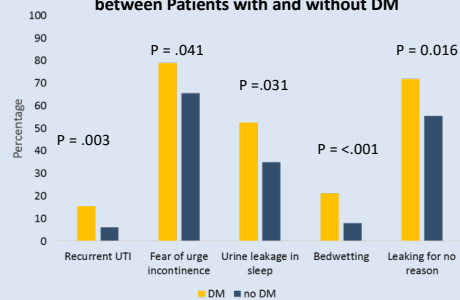
## METHODS

- Baseline demographics and symptom scores between 597 subjects with and without DM were compared.
- Differences in absolute post-void residual (PVR) and change in PVR at 2 and 6 weeks post-op were contrasted.
- Subjective and objective treatment success were compared between groups.
- Chi-square, Fisher's exact Student's t-test, Mann-Whitney and logistic regression were used.

## RESULTS

- Of 597 subjects, 57 (9.5%) had DM
  - 31 (54.3%) were treated by diet alone
  - 22 (38.5%) were treated by oral medication
- No significant differences were seen between patients with and without DM in height, weight, parity, sling type
- Prior to surgery a higher proportion of patients with DM reported > 3 UTIs per year (p=0.003), fear of not making it to their bathroom in time due to urgency (p=0.041), leakage in their sleep (p=0.031), bedwetting (p<0.001), and leakage for no obvious reason (p=0.016) (see table 1)
- Patients with DM also reported higher stress and urgency scores (p=0.001)
- No differences were seen in absolute or change in PVR at 2 and 6 weeks postop (see table 2).
- No differences were seen in treatment success between groups.
- Postop patients with DM were more likely to report leakage related to physical activity (24.5% vs. 14.8%, p= 0.05)

Table 1. Baseline Differences in Symptoms between Patients with and without DM



## RESULTS

Table 2. Post-Void Residual Volume Postop

	DM	No DM	P-Value
PVR 2 weeks	42.8 ± 77.3	35.0 ± 52.6	0.321
PVR 6 weeks	42.3 ± 52.4	39.0 ± 45.2	0.662

## DISCUSSION

- Preoperative symptom differences between women with and without DM may be related to the effect of DM on sensory and voiding function.
- Limitations include the fact that patients included in this study with DM appeared to have mild disease evidenced by the fact that over half were treated only with diet.

## CONCLUSIONS

- Differences in voiding symptoms pre-operatively may be related to DM.
- Preoperative counseling of women with DM planning MUS should acknowledge higher risk of leakage with activity following MUS surgery.
- There were no significant differences in treatment success and post-void residuals in women with and without DM after surgery.
- MUS remains a safe and effective surgical option for treatment of SUI in women with DM.

## REFERENCES

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