

MONARC VS CALDERA TRANSOBTURATOR (TOT) SUB URETHRAL SLINGS: IS THERE A DIFFERENCE?

Hypothesis / aims of study

The purpose of this study was to determine if there is a clinically significant difference in cure and complication rates between Monarc and Caldera TOT sling techniques.

Study design, materials and methods

A retrospective analysis of 111 consecutive cases of TOT slings (Monarc and Caldera) for stress incontinence was performed from August 2002 to December 2004. Cure was defined as subjective resolution of stress urinary incontinence. Standardized IIQ-7 and UDI-6 short forms were utilized to obtain QOL data.

Results

Follow-up data was available for 110 patients. The mean time for subjective and objective follow up was 11.4 (SD 4.5) months and 5.5 (SD 3.6) months, respectively. Demographics between the two groups were similar with mean values for age 63.5 (31-83), parity 2.5 (0-8) and BMI 26.6 (19.2-38.6). There were 41 Caldera patients and 69 Monarc patients. Of the total 110 slings performed, 20 (18.2%) had isolated TOT procedures. The remaining had additional surgeries for pelvic organ prolapse. Previous surgery for urinary incontinence was performed on 28.2% of the patients. The Caldera group had an SUI cure rate of 95.12% (39/41) with the Monarc group reported as 82.16% (57/69), p-value 0.077 (Fisher's exact test). Postoperative de novo urgency, mixed incontinence, and voiding dysfunction were reported for the Caldera vs Monarc groups as follows: 15/41 (36.59%) vs 20/69 (28.99%), p-value 0.414; 2/41 (4.88%) vs 10/69 (14.19%), p-value 0.076; and 2/41 (4.88%) vs 5/69 (7.25%), p-value 0.606, respectively. There were a total of 5 postoperative complications: two in the Caldera group (one erosion and one urinary obstruction); three in the Monarc group (one vaginal separation and two incisional bleeding). The complication rates (Caldera group 4.88%, Monarc 4.35%, p-value 0.88), were not significantly different. Postoperative QOL data was available for 65/110 patients (59% response rate). The mean IIQ-7 score for Caldera was 1.25 (SD 3.02) vs Monarc 1.33 (SD 3.46), p-value 0.77. UDI-6 scores were reported as Caldera 2.68 (SD 2.23) and Monarc 2.77 (SD 3.60), p-value 0.896.

Interpretation of results

Both Monarc and Caldera groups had favorable cure rates. A comparative analysis using Fisher's exact test revealed that there was not a statistical significant difference. Postoperative de novo urgency, mixed incontinence, and voiding dysfunction were also similar between the groups. Complications observed during our study were minor and treatable. Reported rates were similar in both groups. Overall QOL outcomes displayed low IIQ-7 and UDI-6 scores.

Concluding message

There is no statistical evidence to support a difference between Caldera and Monarc. Early results show that both TOT sub-urethral techniques are safe and effective. Long term studies are warranted.