

SUPERFICIAL IMPLANTATION OF THE I-STOP TOMS TRANSOBTURATOR SLING IN THE TREATMENT OF POST-PROSTATECTOMY URINARY INCONTINENCE: DESCRIPTION OF A NOVEL TECHNIQUE AND SHORT-TERM CLINICAL OUTCOMES

Hypothesis / aims of study

The aim of this study is to describe a new technique for implantation of the I-Stop TOMS transobturator sling and present the clinical outcomes on patients treated for minor to moderate urinary incontinence after radical prostatectomy.

Study design, materials and methods

We performed a prospective single center study including 29 patients with minor to moderate post-prostatectomy urinary incontinence surgically treated with a four arm suburethral sling I-Stop TOMS. The main assessment criteria was the daily pad use. Patients were evaluated preoperatively and at months 1, 3 and 6 post-operatively.

Results

Surgical Technique

Implantation was performed with patient under general anesthesia. The patient was placed in the lithotomy position and a 16F Foley urethral catheter was inserted. A 4 cm vertical perineal incision was made along the median raphé above bulbocavernosus muscle. The perineal aponeurosis was incised. No muscle dissection was performed at the perineal body. The distance between the fat and the perineal skin was measured. Next the superficial fascia was incised. A 1 cm horizontal incision was made bilaterally at the mid point of the exposed tissue just lateral to the midline. The operator indentified with his index finger the apex of the triangle formed by the ischio-cavernosus muscle laterally and the bulbocavernosus muscle medially. The sling was attached at each end to the helical needle. The needle was positioned above the index finger at the apex of the triangle previously described. The transobturator puncture was performed inside to outside with a 45° needle positioning. Simultaneously the dorsal surface of the index finger was used to displace the bulbocavernosus muscle and the spongiosus muscle with the foley catheter to avoid urethral injury. The needle was then allowed to pierce the skin overlying the obturator fossa. The needle was withdrawn. An identical procedure was repeated on the opposite side. The sling was pulled slightly and secured distally by two non-absorbable sutures to the bulbocavernosus muscle and adjacent fat. Then the sling was pulled firmly and equally on each side to obtain, at the minimum, a doubling of the length between the sling and the perineal skin ($\geq 2x$). If significant bleeding occurs only non-electrical hemostasis was performed using hemostatic agents such as Surgicel or Fibrillar. The incision was closed without drainage. The Foley Catheter was removed at on post-operative day 1 or 2.

Clinical outcome

The mean age was 65.3 years. 3 patients had undergone previous radiotherapy. Preoperatively, the mean daily pad use was 2.3 with an average weight of 119.9g at the 24 hour Pad-Test. The mean operative time was 17.7 minutes. There were no major surgical complications. Before placing the sling, the distance between the fat and perineal skin was 12.65 mm (10 – 18). Once the sling was placed, the distance was verified at 29.69 mm (24 – 42). At six months, 18 patients (64%) did not report any pad deployment and 86% were using a maximum of one pad daily. There was a 58% reduction in mean post-operative pad weight (49.27g).

Interpretation of results

A comparison of our continence results with the first publication using the I-Stop TOMS(1) and the original technique has shown similar outcomes (59.4% completely dry and 80% using a maximum one pad daily). Limitations of our study were the short follow-up and the number of patients.

Concluding message

This novel approach for insertion of the transobturator I-Stop TOMS male sling is a quick, simple and a well tolerated procedure with low complication rates, allowing a significant improvement in post-prostatectomy incontinence even in patients with radiotherapy history.

References

1. Grise P I-STOP TOMS transobturator male sling, a minimally invasive treatment for post-prostatectomy incontinence: continence improvement and tolerability

Disclosures

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