

TRANSVESICAL LAPAROENDOSCOPIC SINGLE-SITE SURGERY (LESS) FOR REMOVAL OF ERODED MIDURETHRAL POLYPROPYLENE SLING: EXPERIENCE OF FIVE CASES.

Hypothesis / aims of study

Midurethral polypropylene slings have become a standard treatment of stress urinary incontinence in women for the last two decades. Complications of these methods such as erosion into the bladder are not very common, however, when they occur it may necessitate removal of the tape. To date, tapes are usually removed through an open cystotomy, by operative cystoscopy or laparoscopically. An open approach is associated with a comparatively big trauma and endoscopic surgery is inconvenient and often fails. Laparoscopy is a minimally invasive and efficient method but it is associated with a small risk of bowel injury. We present our experience in removing the eroded tapes through a single port inserted directly into the bladder.

Study design, materials and methods

From November 2009 to February 2011 five women aged 41 to 57 (mean 49) underwent the treatment of bladder tape erosion with transvesical LESS approach. The mean time from initial sling operation was 17 months (range 7-56). The suprapubic skin incision was 15mm long. A TriPort® single-site access system (Olympus Winter & IBE GMBH, Hamburg, Germany) was placed through the apex of the bladder under cystoscopic control. Carbon dioxide was used for insufflation of the bladder. A combination of straight and articulating laparoscopic instruments was used to dissect the tape away from the bladder wall and cut each end for complete removal of a foreign body. An 18F Foley catheter was left for seven days.

Results

The mean operative time was 50 min (range 35- 90). The median hospital stay after procedure was 1.8 days (range 1-4). No blood loss nor complication were observed except one conversion to an open surgery due to perivesical abscess. Reduction of pelvic pain and decrease in urgency as well as negative urine culture were achieved in all patients. Recurrent stress urinary incontinence occurred in three females. The mean follow-up time of 9 months (range 2-16) showed no adverse events related to the method.

Interpretation of results

The obtained results confirm the feasibility of transvesical laparoendoscopic single-site surgery (LESS) for removal of eroded midurethral polypropylene sling as well as its efficacy and safety.

Concluding message

Laparoendoscopic removal of eroded slings from the bladder through a single-port transvesical access is technically feasible. This procedure offers excellent visualization inside the bladder, especially near the bladder neck where polypropylene tapes usually reside. This approach produces a minimally invasive surgery through a single small incision and should be considered as a first choice treatment in such cases.

<i>Specify source of funding or grant</i>	We disclose any financial and personal relationships with other people or organizations that could inappropriately influence our work.
<i>Is this a clinical trial?</i>	No
<i>What were the subjects in the study?</i>	HUMAN
<i>Was this study approved by an ethics committee?</i>	No
<i>This study did not require ethics committee approval because</i>	this kind of treatment is a part of a regular clinical work in our center
<i>Was the Declaration of Helsinki followed?</i>	Yes
<i>Was informed consent obtained from the patients?</i>	Yes