

FUNCTIONAL OUTCOMES AFTER REPAIR OF MESH EXTRUSION INTO THE LOWER URINARY TRACT

Hypothesis / aims of study

Mesh extrusion into the lower urinary tract after pelvic surgery is a well-known complication. Our aim was to assess the functional outcomes after repair of mesh extrusion in the lower urinary tract and how these were managed.

Study design, materials and methods

Retrospective review of medical records from January 2000 to Aug 2010. CPT codes for endoscopic or vaginal foreign body removal, urethrolisis, sling revision or removal, female urethroplasty, cystorrhaphy and cystectomy (partial/simple) were used to identify patients with extrusion of any graft material into the urinary tract following pelvic surgery. We recorded age at repair, time to repair, type of extruded graft material, inciting procedure, duration of follow-up, location of extrusion, number of previous attempts at repair, initial management, functional outcome, subsequent procedures and overall outcome.

Results

36 females identified. Mean age at repair was 52.3 years (25-89). Time to repair was 2.9 years (8 days-10.6 years). Mean follow-up was 1.6 ± 1.9 years. 29 patients had undergone mid-urethral slings (81%) [28 polypropylene, 1 Stratisis]. Most frequent sites of extrusion were urethra (42%) and bladder walls/dome (36%). 10 patients (28%) had 12 previous attempts at repair. Our initial repair involved urethroplasty (44%), partial cystectomy (28%), cystorrhaphy (17%), endoscopic techniques (8%) and abdominal vesico-vaginal fistula repair (3%). Postoperatively, 1 patient (3%) developed de novo urgency, treated with anticholinergics. 21 patients (64%) had incontinence [6 urge (17%), 4 stress (11%), 11 mixed (31%), 2 total (5%)]. 1 patient developed new pelvic pain requiring referral to pain specialists, and 3 had ongoing pelvic pain. 14 patients (39%) required secondary procedures including botox injection (2), neuromodulation (1) and bladder augmentation (1). 6 patients (17%) underwent a third procedure and 2 patients required a fourth. At last follow-up, 36% were cured of their preoperative symptoms, 36% had good control over their postoperative symptoms and 28% had significant ongoing symptoms.

Interpretation of results

Polypropylene mid-urethral sling extrusions of the urethra are most commonly seen. After initial repair, 2/3 will have incontinence (mostly mixed or urge) and de novo urgency is rare. Approximately 40% will require a second procedure. 70% of patients will achieve either good control or resolution of their symptoms.

Concluding message

Mesh extrusion into the genitourinary tract usually requires a complex surgical approach. Patients undergoing repair must be adequately counselled on the risks of postoperative voiding dysfunction, incontinence and need for additional procedures.

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<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>	Yes
<i>Specify Name of Ethics Committee</i>	Institutional Review Board, Vanderbilt University Medical Center
<i>Was the Declaration of Helsinki followed?</i>	Yes
<i>Was informed consent obtained from the patients?</i>	No