

PRESENTATION AND MANAGEMENT OF IATROGENIC FOREIGN BODIES OF THE LOWER URINARY TRACT FOLLOWING PELVIC SURGERY

Hypothesis / aims of study

The surgical use of mesh technologies for pelvic surgery may increase the risk of mesh complications. These complications present challenges for identification and treatment. We review presentation, management and outcomes for a series of iatrogenic foreign bodies of the female lower urinary tract.

Study design, materials and methods

Retrospective review of 85 patients with mesh complications following pelvic surgery between 11/2000 and 9/2009 were evaluated for demographics, presenting symptoms, prior procedures, type of foreign body, technique and outcomes.

Results

Mean patient age was 55.1 years (22.2 - 89.8). 85 patients (48 extrusions, 40 erosions, 3 both) were treated. 42 (49.4%) had prior pelvic surgery prior to source procedure. Table 1 contains presentation, management and outcomes.

Table 1 Presentation, Management and Outcomes of Extrusions and Erosions

	EXTRUSIONS	EROSIONS
Common presenting Symptoms	dyspareunia (45.8%), pain (33%), incontinence (29.2%)	incontinence (55%), pain (42.5%), frequency/ urgency (40%)
Time to Presentation	6.1 months (0 – 84)	10.6 months (0 – 122.6)
Source Procedure	39 anti-incontinence (81.3%) 18 prolapse (37.5%)	34 anti-incontinence (85%) 9 prolapse (22.5%)
Type of Mesh	44 polypropylene (91.7%) 2 porcine dermis (4.2%) 1 protegen sling (2%)	24 polypropylene (60%) 24 suture (60%) 4 protegen sling (10%) 2 xenograft (5%) 2 Gore-Tex (5%)
Prior Outside Attempt at Removal	10.8% 9 transvaginal, 1 endoscopic	37.5% 7 transvaginal, 6 endoscopic, 2 laparoscopic
Initial Management	100% mesh excision and simple vaginal closure	17 (42.5%) cystorrhaphy or partial cystectomy 13 (32.5%) urethroplasty (6 interposition grafts) 4 (10%) endoscopic 2 (5%) abdominal fistula repair + interposition graft 1 ileal conduit
Final Subjective Outcomes	36 (75%) cured 10 (20.8%) improved	21 (52.5%) cured 14 (35%) improved
New SUI rate	3 (6.25%)	1 (2.5%)

Interpretation of results

Symptoms improved with excision in all extrusions, except 1 (0.45%) re-excision for persistent vaginal pain, 2 delayed re-excisions and 1 (0.9%) with persistent obturator pain requiring orthopaedic exposure and mesh removal. 3 (6.3%) extrusion patients developed de novo urgency, while 5 (10.4%) had resolution of mixed urinary incontinence (MUI). Location of the foreign body erosion was urethra in 12 (30%), and bladder in 31 (77.5%). All except 2 erosions, were evident cystoscopically. 3 patients (7.5%) had a secondary procedure (2 partial cystectomy, 1 abdominal fistula repair), with 1 (2.5%) requiring a third procedure (complex urethroplasty). 2 patients (5%) developed de novo urgency, while 7 (17.5%) had resolution of MUI. 3 (2 pubovaginal sling, 1 bulking agent) patients with stress urinary incontinence (SUI) underwent anti-incontinence therapy.

Concluding message

This is the largest series to date of iatrogenic foreign body erosions of the bladder and urethra. While this complex population had multiple prior repairs, the low reoperation rate and dramatic symptom regression supports our management of non-endoscopic vesical repair and interpositional grafting for complex urethrovaginal fistulas.

Specify source of funding or grant	n/a
Is this a clinical trial?	No
What were the subjects in the study?	HUMAN
Was this study approved by an ethics committee?	No
This study did not require ethics committee approval because	This was a retrospective chart review and did not require ethics committee approval.
Was the Declaration of Helsinki followed?	Yes
Was informed consent obtained from the patients?	Yes

