

TWENTY-TWO CASES OF POST-OPERATIVE IATROGENIC FOREIGN BODIES OF THE BLADDER AND URETHRA: AN UPDATE ON TECHNIQUES FOR REMOVAL OF SUTURES AND MESH

Hypothesis / aims of study

Excluding a few case reports and expert opinions, literature regarding the management of the complication of iatrogenic foreign body in the bladder and urethra following female pelvic reconstructive surgery, especially mesh erosion, are sparse. We present our recent experience with the removal of iatrogenic foreign bodies from the bladder and urethra

Study design, materials and methods

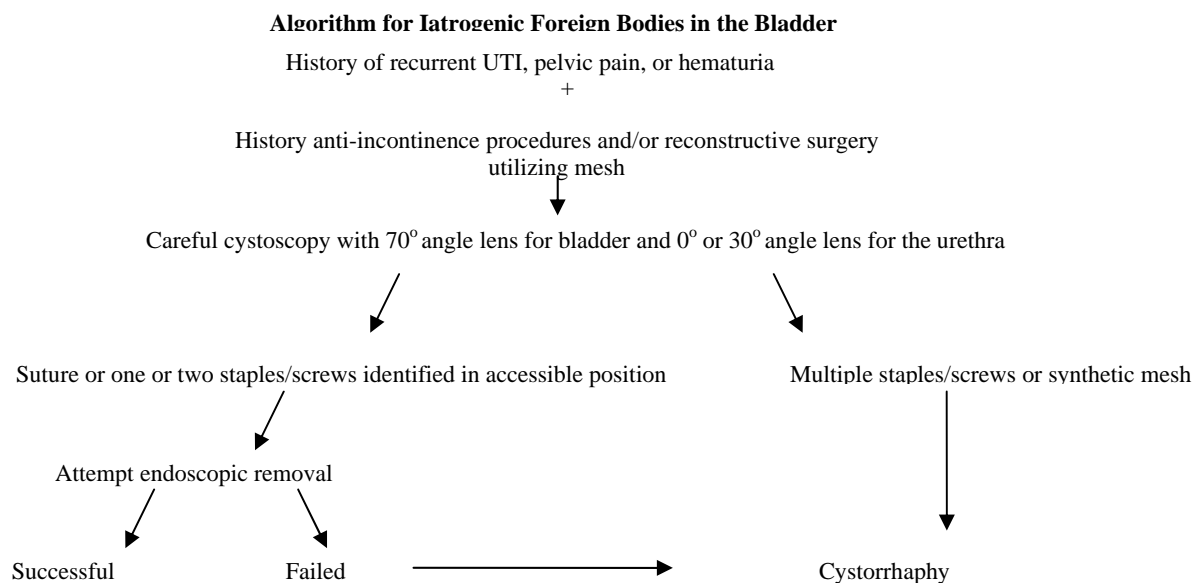
A retrospective review of our database yielded 22 patients referred for the management of iatrogenic foreign body in the bladder or urethra between 1/1998 and 12/2005. Presenting complaints, cystoscopic findings, operative techniques and outcomes were evaluated.

Results

Patients (pt) presented a median of 26.5 months post initial surgery. Source surgery of the iatrogenic foreign bodies included bladder suspension in 11 pt (48%), synthetic sling in 10 pt (39%), abdominal sacrocolpopexy and porcine sling in 1 pt each. The majority of patients presented with multiple voiding dysfunctions including overactive bladder symptoms (11 pt), mixed incontinence (3 pt) chronic pelvic or urethral pain (7 pt), urinary tract infections (7 pt), obstructive voiding symptoms or retention (5 pt), recurrent stress incontinence (2 pt), and gross hematuria (3 pt). In 6 of the 7 patients that complained of pain, the foreign body was located at or very close to the bladder neck. Eleven of the 23 cases were managed endoscopically, 4 using the holmium laser. Endoscopic management was unsuccessful in two patients in which the suture was embedded beneath the mucosa and could not be completely removed. One of these was managed successfully with an anticholinergic medication while the other patient required cystorrhaphy with suture removal. Endoscopic resection of mesh material was attempted in 2 pt and successful in one. Two patients were managed with urethroplasty alone, and 3 using a suprapubic approach alone. Of the remaining 7 patients, 2 underwent a combination of endoscopic and suprapubic techniques, 2 underwent a suprapubic approach combined with urethroplasty, and 3 underwent a suprapubic and vaginal approach but did not require urethroplasty. There were no intra or post-operative complications. No patients required complex reconstruction with interposition grafts or flaps. Of the 11 patients that presented with OAB, 5 continued to have symptoms post-operatively that were managed successfully with anticholinergic medication.

Interpretation of results

From this series, we have found that sutures in the urethra or bladder can most often be managed successfully with endoscopic techniques, whereas mesh is best managed with cystorrhaphy and/or urethroplasty. Complaints of pelvic or urethral pain after pelvic surgery should cause suspicion for foreign body at the bladder neck. From this data, we have created a simple treatment algorithm to guide treatment planning.



Concluding message

The diagnosis of iatrogenic foreign bodies in the lower urinary tract requires a high index of suspicion and a low threshold for performing cystoscopy. In most cases, suture in the bladder can be managed successfully with endoscopic techniques whereas mesh requires open removal. To our knowledge, our series represents the largest number of reported iatrogenic foreign body removals at a single institution

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HUMAN SUBJECTS: This study was approved by the Cleveland Clinic IRB but did not follow the Declaration of Helsinki - with approval by the ethics committee - in the sense that consent was not obtained from patients as this was a retrospective chart review of accepted surgical techniques and patients were not contacted for any further information beyond what was provided in the official medical record. Informed consent was not obtained from the patients.