

Late chronic inflammatory reaction post-silastic sling insertion masquerading as an invasive bladder tumour

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Abstract

There are various surgical techniques to treat female stress urinary incontinence. We present the case of a long-term complication in a lady, where a silastic sling caused a massive retropubic fibrous reaction, masquerading, clinically and radiologically, as a muscle invasive bladder cancer.

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Introduction

In the last 3 decades, various surgical techniques have been employed to treat female stress urinary incontinence (SUI), including the older style pubovaginal synthetic mesh slings.¹ This treatment has been superseded by the more recent transvaginal and transobturator tapes, which are widely used because of their inertness and biocompatibility.² Long-term complications after mersiline and silastic sling insertion include urethral, bladder and vaginal erosion. We present the case of a long-term complication in a female, where a silastic sling caused a massive retropubic fibrous reaction, masquerading, clinically and radiologically, as a muscle invasive bladder cancer.

Case report

A 67-year-old female was referred to our department with gross, painless macroscopic hematuria. A preliminary hematuria screen revealed normal upper tracts on intravenous urography and ultrasound scanning, normal hematological and renal profile, a thickened bladder wall on ultrasound scanning, and gross mucosal abnormality of the anterior and right lateral bladder walls on flexible cystoscopy.

A clinical diagnosis of bladder neoplasm was made and the patient booked for a transurethral resection of bladder tumour (TUR). During the surgery, an examination under anesthetic revealed a mobile mass involving the ante-

rior bladder wall; a cystoscopy confirmed the presence of a lobulated, solid intravesical mass. This was resected transurethrally. The mass appeared to be extending into the detrusor, therefore deep resection biopsies were taken. A computed tomography (CT) scan of the chest, abdomen and pelvis was arranged. No evidence of metastatic disease was noted; however, a grossly thickened irregular mass was seen, involving the anterior bladder wall and retropubic space, consistent with a muscle invasive bladder cancer (Fig. 1) (Fig. 2). Histological examination comprised of multiple fragments of bladder tissue including detrusor. The surface urothelium, however, showed no evidence of dysplasia or malignancy, with the lamina propria and detrusor showing oedema and a chronic inflammatory cell infiltrate only (i.e., infiltration of macrophages and lymphocytes).

In view of the high index of suspicion radiologically and endoscopically, further biopsies were arranged percutaneously under CT guidance, 6 weeks after the TUR; histology again only revealed a non-specific chronic inflammatory process.

On closer questioning, the patient revealed that she had undergone an uncomplicated suburethral sling placement 8 years prior to her referral to our unit. The consultant gynecologist who had performed the initial procedure was contacted, and it was confirmed from the operation notes that a silicone sling had been inserted at that time. Review of the CT scan revealed that the previously unidentified tape was actually very close to the bladder wall, although not eroding through it (Fig.1).

The patient is now asymptomatic and reports no further hematuria; a follow-up CT scan of the pelvis, at 6 months, remains unchanged. Further cystoscopies were performed for 12 months on 6 monthly intervals, but these were discontinued as the patient remained well.

Following discussion at our oncology multidisciplinary team meeting it was concluded that the close proximity of the tape to the bladder wall had stimulated a large inflammatory mass to form, which then presented with painless hematuria.



Fig. 1. A computed tomography scan revealing the previously unidentified tape very close to the bladder wall, without eroding it.



Fig. 2. A computed tomography scan showing a grossly thickened irregular mass, involving the anterior bladder wall and retropubic space.

Discussion

Previously, cases of hematuria arising late after the tension-free vaginal tape/urethral sling placement have been reported to be associated with either bladder or urethral erosion of the tape.^{3,4} Our case differs from other reports in the literature in that there was no tape erosion and the tape had caused a pseudo-tumour of inflammatory tissue to form, which masqueraded as a muscle invasive bladder tumour. These types of pubovaginal slings are no longer used for urinary SUI due to the above-mentioned complications and are no longer commercially available.

To our knowledge, there have been no previously reported cases of such an extreme chronic inflammatory reaction within the retropubic space, caused by synthetic slings, which have then subsequently presented with painless hematuria.

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