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IMAGES IN UROGYNECOLOGY

Complete laparoscopic removal of retropubic midurethral tape (tension-free vaginal tape) from the obturator nerve: a multidisciplinary approach

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Introduction

Obturator neuralgia following mid-urethral sling is rare and most commonly associated with transobturator tapes [1]. Prior reports of obturator nerve injury from retropubic midurethral tape (or tension-free vaginal tape, TVT) have described leaving the portion of tape attached to the nerve in situ [2, 3]. We present a case of obturator neuralgia secondary to lateral retropubic tape misplacement. A multi-disciplinary approach resulted in complete tape removal.

Case study

A 53-year-old woman had been referred to Urogynecology with right groin pain following TVT insertion 18 months earlier. She had had a previous diagnosis of fibromyalgia. She reported sharp right-sided groin pain, starting immediately on waking post-operatively. The pain radiated down her medial thigh and was exacerbated by walking. She was initially managed locally by orthopaedic and pain clinics, with neuropathic pain medications, CT-guided steroid injection to the obturator nerve and psychology input. MRI failed to show scarring in a location that might suggest tape misplacement. Following tertiary centre referral for unsuccessful conservative management of persistent pain (with no improvement in stress incontinence), her case was discussed at our multi-disciplinary team meeting and the patient offered laparoscopic TVT removal. Following dissection and division of the vaginal portion of the tape, the left intra-abdominal arm was found and removed; the right arm was not easily identified. Traction on the proximal portion of the mesh revealed that it passed through the internal obturator muscle, attached to the obturator nerve

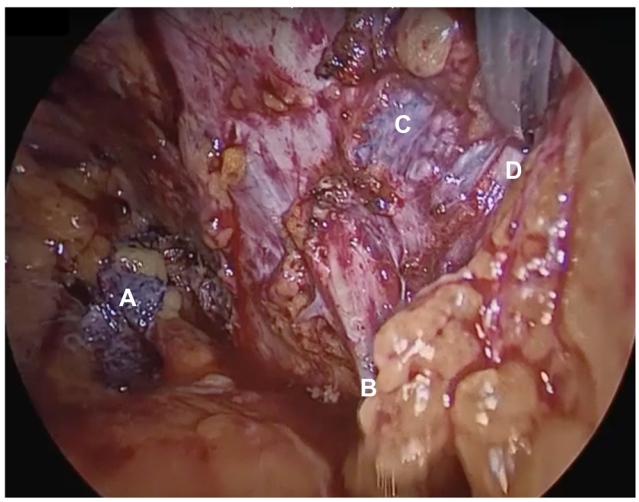

Fig. 1 Intra-operative laparoscopic image following initial dissection. Tension-free vaginal tape (TVT) had been divided vaginally and the vaginal portion passed into the peritoneal cavity (*A*); traction on this portion demonstrated the path of the mesh. Proximity and attachment to the obturator nerve and neurovascular bundle (*B*) were noted and a plastic surgeon gave advice. The distal portion of the right TVT was adherent to the pelvic side wall (*C*) in close proximity to the external iliac vessels (*D*)

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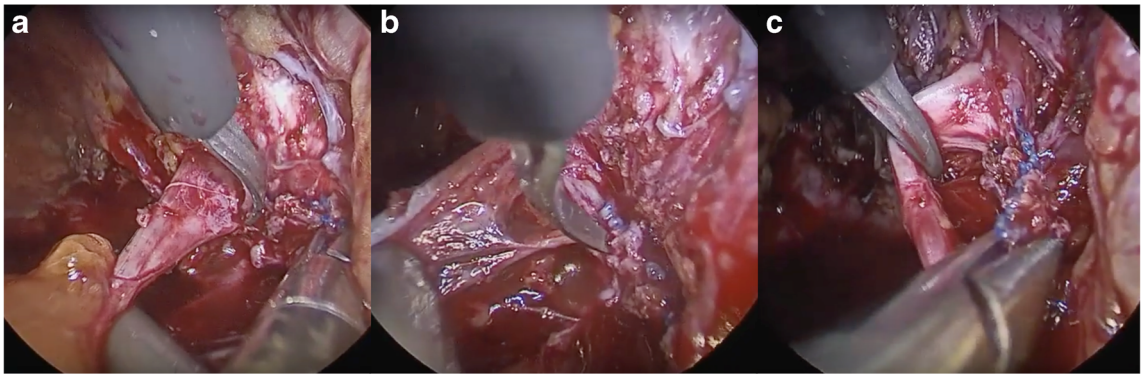

Fig. 2 Cautious sharp and blunt dissection in close proximity to the TVT allowed the tape to be removed from the **a** posterior and **b**, **c** lateral surfaces of the obturator nerve

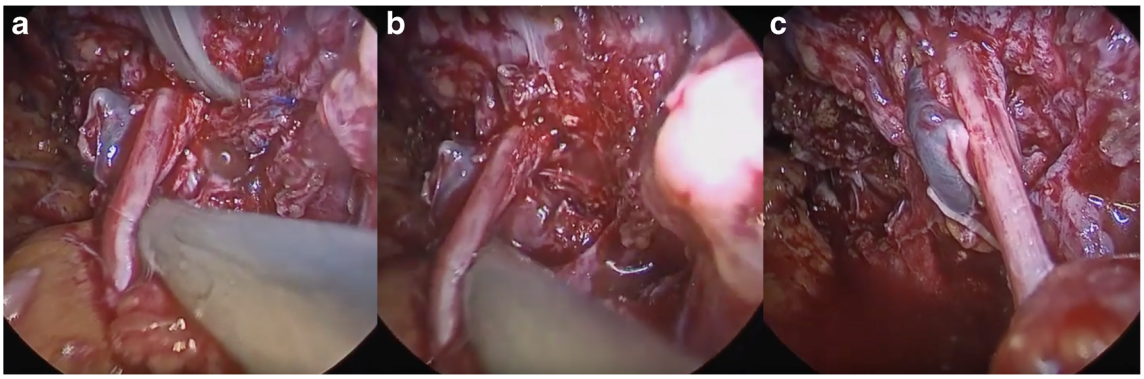

Fig. 3 **a**, **b** Following direct dissection from the obturator nerve, the final portion of the mesh was completely removed from the internal obturator muscle and pelvic side wall. **c** Obturator nerve integrity was confirmed intra-operatively by a plastic surgeon

posteriorly and ended close to the external iliac vessels (Fig. 1). The mesh was carefully dissected from the epineurium of the obturator nerve (Fig. 2) with guidance from a plastic surgeon. Fascicular integrity was confirmed intra-operatively. The mesh was then completely removed (Fig. 3). At 2 months post-operatively, the patient had complete resolution of right-sided groin pain, no muscle weakness and an overall improvement in stress incontinence. The tape was an Ethicon polypropylene standard type 1 TVT mesh.

Conclusion

During retropubic mid-urethral sling insertion, care should be taken not to advance the mesh laterally. In patients suffering from post-operative obturator neuralgia, malpositioning of the tape should be considered, although it is challenging to diagnose pre-operatively.

Compliance with ethical standards

Conflicts of interest None.

Consent Written informed consent was obtained from the patient for publication of this case report and any accompanying images.

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