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THE ONE YEAR EXPERIENCE OF TAPE AND MESH REMOVAL BY A UROLOGICAL TERTIARY REFERRAL CENTRE

Hypothesis / aims of study

The use of synthetic tape and mesh for incontinence and prolapse surgery is controversial due to complications regarding erosion and pain. Our institution is a tertiary referral centre offering expert assessment and operative intervention for complications surrounding these procedures. The aim of this study was to review the caseload of the centre dealing with complications of mesh and synthetic tapes and assess post operative outcomes.

Study design, materials and methods

Data was collected retrospectively from an online clinical notes system for all patients undergoing removal of transvaginal tape and/or vaginal mesh between March 2015 and February 2016. All patients were reviewed post operatively in an outpatient clinic or by telephone consultation by the operating surgeon.

Results

25 patients underwent surgery in the tertiary referral centre in the 12 month period studied. All were female with an age range of 46 to 81 years.

Patients presented to both the urology and gynaecology services with a variety of symptoms.

12 patients complained of pain, 7 had recurrent urinary tract infections, 7 with lower urinary tract symptoms and 4 had persistent vaginal discharge. 3 patients were incontinent, 3 suffered dyspareunia and 3 reported visible haematuria. One patient requested removal despite being asymptomatic. 3 patients could perform intermittent self catheterisation pre operatively with 2 specifically unable to due to tape obstructing the urethra. 17 patients had a pre operative diagnostic cystoscopy to locate abnormalities of which 10 were performed by urologists. 3 patients had previous endoscopic attempts to remove the tape all of which failed.

Review of the original operation revealed 10 patients had TVTO, 8 retropubic tapes, 4 vaginal mesh only and 3 had combined tape and anterior vaginal mesh. 5/25 (20%) were inserted by urologists and 20 (80%) by gynaecologists. The earliest date of insertion was 2000 and continued up 2014. 9 of the original procedures were inserted in different health boards than the tertiary referral centre (2 under urology, 7 by gynaecology).

The ICS IUGS prosthesis/graft calculator was used to classify tape and mesh location.

Stage	Definition	N
1A	vaginal no epithelial separation, abnormal prosthesis	1
1B	vaginal no epithelial separation, symptomatic	5
1C	vaginal no epithelial separation, infection	1
3B	vaginal larger than 1cm exposure, symptomatic	4
3C	vaginal larger than 1cm exposure, infection	3
4B	urinary tract, lower	9
6B	skin or other musculoskeletal, symptomatic	2
T4	Over 12 months	25
S1	vaginal suture line	5
S2	vaginal away from suture line	8
S3	trochar passage	1
S4	other skin or other musculoskeletal site	3
S5	intra-abdominal	8

In regards to location, of the patients having only tape removed, 5 were noted to be transecting the urethra and 3 found in the bladder. Four patients had palpable tape and 2 had vaginal erosion.

Amongst patients having removal of vaginal mesh only, 3 had vaginal erosion and one had mesh within the bladder.

Of those having combined tape and mesh removal, 1 patient had tape across the urethra and 1 had a vaginal erosion.

Analysis of the operative procedures performed revealed 16 patients had complete tape removal of which three required an abdominal approach, and 5 underwent partial removal of tape (either arm or urethral part only). 1 case had to be abandoned due to patient fitness under anaesthetic. 1/25 had a concurrent autologous fascial sling placed. 3 patients required a martius fat graft as part of the repair.

Post operatively 1 patient requires further treatment involving laser ablation of mesh within the bladder. Of the remaining 24 patients, 11 are incontinent of urine; 1 manages symptoms medically, 3 do not wish any further surgical intervention and 7 desire an operative intervention. 13 patients are continent post operatively however, 2 wish to have further surgery to repair anterior wall prolapse recurrence after removal of vaginal mesh. The remaining 11 continent patients do not desire any further intervention. Only two patients perform intermittent self catheterisation, 1 in preparation for an autologous fascial sling and one due to poor flow to ensure bladder emptying.

12 patients complained of pain pre-operatively, after removal 8 reported their pain to be significantly improved and 4 described worsening discomfort. Seven patients suffered from urinary tract infections of which 6 resolved post operatively. To date, no patients have developed a fistula post operatively.

Interpretation of results

Our results show an average operation rate of 2 cases per month with the majority for removal of TVTO. The most common location for tape to be identified with across the urethra but there was also a significant number of patients with vaginal erosion of tape and mesh products. The majority of patients successfully underwent removal of all their tapes however, it should be noted a small number required a combined abdominal and vaginal approach. In our series we only performed one simultaneous procedure for incontinence. 54% of patients are continent post operatively and of those who are incontinent 64% request further surgical intervention despite initial complications.

Concluding message

The removal of mesh should be performed in a specialist centre with experience. Long term follow up is essential to assess the continence of these patients and resolution of their symptoms. The question as to whether concurrent incontinence procedures are required is still ongoing as our data demonstrates more than half of the patients to be dry post tape/mesh removal. However it should be noted that for patients who continue to be incontinent, the majority desire further surgical management.

Disclosures

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