Postmenopausal Vaginal Spotting in a Woman

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BRIEF HISTORY

Three years prior to this admission, a 70-year-old woman had undergone anterior and posterior colporrhophy for pelvic organ prolapse and had received a pubovaginal sling (PVS) with polypropylene type I mesh for the treatment of stress urinary incontinence. Bloody vaginal spotting had occurred after the operation and had persisted on and off for three years. The patient was referred to our urogynecology clinic by a local medical doctor on suspicion of a vaginal tumor. She had suffered from type 2 diabetes mellitus for at least 10 years with poor medical control.

CLINICAL INVESTIGATION

Under speculum inspection, the vagina was atrophic with a copious malodor discharge. Colposcope examination showed the presence of extruded mesh, measuring about 3 cm x 1 cm in size on the anterior vaginal wall (Fig. 1). The urine analysis was unremarkable without the present of hematuria or pyuria.

CLINICAL COURSE

A partial resectioning of the mesh was carried out under general anaesthesia. The surgical procedure involved a resection of the mesh beginning with dissection around the exteriorized section. After the extruded mesh was excised, the vagina was closed by an interrupted, tension-free Vicryl 1/0 suture. The microscopic examination showed a picture of foreign body granuloma surrounded by fibrotic tissue. The patient experienced stress urinary incontinence after removal of the extruded mesh. She was treated with oral medications and pelvic floor muscle training. No further operation was needed in the five months since the removal procedure.

DISCUSSION

We have reported four patients who underwent suburethral slingplasty using different implant materials that have required surgical removal of implant material, including one with intravesical Ethibond migration, two with vaginal mucosa mesh (Marlex) erosion and one with intravesical mesh erosion (TVT) [1]. Histological investigations found marked inflammatory changes and an increase in fibrous tissue around the grafts that were removed. The erosion rate of mesh after anti-incontinence surgery seems to be associated with the type of synthetic material used. Wang et al [2] reported that the rate of defective vaginal healing after the TVT procedure was 2.4%. An immunohistochemistry study of the removed prostheses suggested that there is the possibility of a host versus prosthesis reaction in the vagina when polypropylene mesh is used.

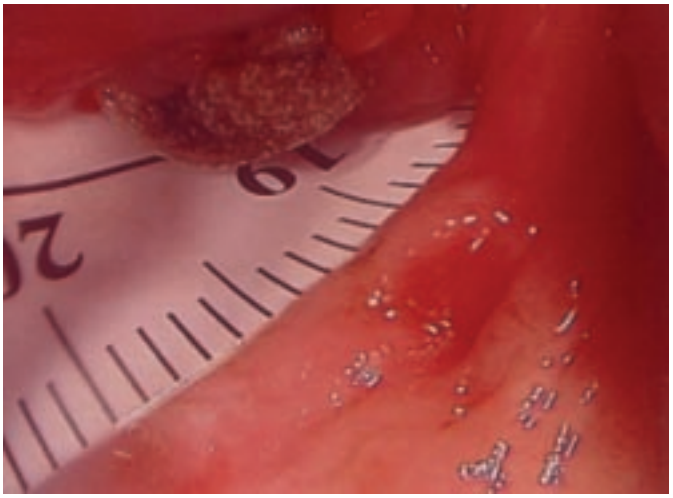

Fig. 1. Extruded mesh on anterior vaginal wall with the absence of healing after anti-incontinence surgery.

Most of the erosion of graft materials seems to occur relatively late, usually one to four years postoperatively. The risk factors may include poorly controlled diabetes mellitus, tobacco use, prior history of pelvic irradiation, repeat procedures, estrogen deficiency and the rolling of tape during placement [3]. Collinet et al [4] reported that concomitant hysterectomy was a risk factor for mesh exposure after tranvaginal mesh procedure for pelvic organ prolapse. The symptoms of vaginal mesh erosion or urinary tract erosion include vaginal discharge, pain, dyspareunia, pain from the partner during intercourse (hispareunia), *de novo* stress urinary incontinence, urgency, hematuria or recurrent urinary tract infection [3]. Management is based on the type of material, the presence of infection and the location of the erosion. The extrusion of mesh into the vagina may be managed conservatively with local estrogen treatment and a cure rate of 33% has been reported by Dwyer and O'Reilly [5]. Partial resectioning of the mesh should be carried out if the defective healing persists after 6 to 8 weeks. Another group described a 26% cure rate associated with abstinence from sexual intercourse, the use of a local vaginal antiseptic and treatment with an antibiotic (metronidazole) for 1 month [4]. Our case underwent partial resectioning of the extruded mesh due to the absence of healing and the presence of infection. However, urinary continence was compromised after the removal procedure.

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REFERENCES

1. Tsui KP, Ng SC, Tee YT, Yeh GP, Chen GD: Complication of synthetic graft materials used in suburethral sling procedures. Int Urogynecol J Pelvic Floor Dysfunct 2005; **16**:165-167.
2. Wang AC, Lee LY, Lin CT, Chen JR: A histologic and immunohistochemical analysis of defective vaginal healing after continence taping procedures: A prospective case-controlled pilot study. Am J Obstet Gynecol 2004; **19**:1868-1874.
3. Nazemi TM, Kobashi KC: Complications of grafts used in female pelvic floor reconstruction: Mesh erosion and extrusion. Indian J Urol 2007; **23**:153-160.
4. Collinet P, Belot F, Debodinance P, Ha Duc E, Lucot JP, Cosson M: Transvaginal mesh technique for pelvic organ prolapse repair: Mesh exposure management and risk factors. Int Urogynecol J 2006; **17**: 315-320.
5. Dwyer PL, O'Reilly BA: Transvaginal repair of anterior and posterior compartment prolapse with Atrium polypropylene mesh. BJOG 2004; **111**:831-836.