

## Case Report

# Mesh Infection in Sacrocolpopexy: A Novel Approach to Management

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ABSTRACT

Surgical mesh has been in use for urogynecological surgeries for a long, but they come with their own side effect profile and maybe life-altering consequences. We discuss a novel method of management of mesh erosion and infection in a patient with mesh sacrocolpopexy.

**KEYWORDS:** Mesh, prolapse, sacrocolpopexy

## INTRODUCTION

Surgical mesh has been in use for surgical reinforcement of soft-tissue strength in various surgeries such as pelvic organ prolapse and stress urinary incontinence which are common complications following multiple childbirths. Various types of mesh used have their own advantages and various side effect profiles.<sup>[1]</sup> However, these flexible plastic scaffolds can have life-altering complications.<sup>[2]</sup> One such dreaded complication is erosion and infection, which can be a nightmare for the patient and the surgeon as it may require an undesired re-surgery and mesh removal. We discuss a case where a novel approach was used for mesh infection and erosion.

## CASE REPORT

A 60-year-old female, para 5 live 5, known case of diabetes mellitus well controlled on insulin with long-standing proclivita, and a history of chronic constipation underwent abdominal hysterectomy with mesh sacrocolpopexy and reported to the outpatient department (OPD) with profuse purulent discharge per vaginum 3 weeks postsurgery.

She had been operated in our hospital and had been discharged in stable condition. During her surgery, the vaginal vault had been closed with chromic catgut number 0 before mesh fixation which had been done with number 1 nonabsorbable Prolene suture.

Now, when she presented with infection, a high vaginal swab was sent for culture sensitivity and the patient was

treated on OPD basis with betadine pessary and oral amoxicillin-clavulanic acid, but she did not have any relief and came again with the same complaints.

On per speculum examination, the patient had a small opening in the vaginal vault admitting the tip of the little finger. The mesh was palpable through the vault which was draining frank pus and ultrasonography (USG) showed a 5 cm × 5 cm collection at the vault. Our diagnosis was postsacrocolpopexy pelvic abscess with mesh-related infection. Whether the mesh is the primary cause cannot be ascertained but the presence of mesh certainly acts as a nidus for infection and can make it recalcitrant to infection control strategies. Thus, the patient was readmitted and was started on injection piperacillin-tazobactam combination based on culture reports.

The need for possible mesh removal was explained to her. On review of literature, mesh removal was the treatment suggested. However, on further research, we found some case reports of mesh infection in hernia cases which were treated conservatively and successfully by gentamycin and saline lavage along with negative pressure therapy.<sup>[3]</sup>

Taking a cue, we put a Foley catheter in the pouch of Douglas through the vaginal opening which was inflated

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with 2 ml of saline and did daily lavage with gentamycin and saline. The other end of the Foley was attached to a Urobag which kept draining the pus. After the pus was reduced to satisfaction, the catheter was removed and the patient was sent home on oral antibiotics for 2 weeks.

When followed up after 1 month, she was asymptomatic, the vagina had epithelialized, and USG showed no collection in the pouch of Douglas. The patient was still asymptomatic after 3 and 6 months, respectively, hence considered treated.

This was one of the few cases where sacrocolpopexy mesh erosion and infection were treated successfully by a nonsurgical approach with the novel use of a Foley catheter for irrigation and drainage and mesh removal was thus avoided.

## DISCUSSION

The increasing use of synthetic mesh in surgery and urogynecology is accompanied by an increasing number of mesh-related complications.<sup>[4,5]</sup> All types of synthetic mesh have been associated with complications, macroporous having the least ones. The complications that have been associated include<sup>[6]</sup> erosion (11%), mesh exposure (10.5%), mesh infections (0.7%–8%), recurrent prolapse (21% anatomic and 10.5% symptomatic), dyspareunia (9%), wound granulation (7.8%), organ perforation/bowel obstruction (6%), bladder and ureteral injury (<3%), vaginal shrinkage, osteomyelitis, neuromuscular concerns, emotional concerns, incontinence, and bleeding.

As per the available data, the various treatment options that are available for mesh-related complications in urogynecological surgeries, especially those attempted vaginally, are pain killers, local application of emollients, and estrogen creams,<sup>[7]</sup> and these are only partially successful in providing patient relief and the possible need of surgical revision has to be explained well in advance.<sup>[8]</sup> Even when surgery is done, the patient cannot be reassured of a complete recovery owing to the possibility of incomplete removal of mesh, injury to surrounding structures, failure to do surgery due to limited access or excessive contractures, recurrence of prolapse, risk of increasing the morbidity to the patient by exposing him to another major surgery, and the added expenditure and emotional turmoil that it brings along. The use of mesh in urogynecology is already on a decline for the same reason. In a report of three cases, Kwon *et al.* report the successful management of pelvic abscesses following mesh sacrocolpopexy using long-term antibiotics and percutaneous drainage of intraabdominal abscesses. They used computed tomography-guided drainage of abscess and drain placement.

In our case, this innovative idea of extrapolating the use of a Foley catheter for lavage and drainage managed to avoid re-surgery and treated the patient.<sup>[9]</sup>

Hence, this may be considered a suitable option for similar cases that may be encountered by other surgeons.

## Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form, the patient (s) has/have given his/her/their consent for his/her/their images and other clinical information to be reported in the journal. The patients understand that their names and initials will not be published and that due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

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## Conflicts of interest

There are no conflicts of interest.

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