Late Onset Mesh Erosion into Skin Following Inguinal Hernioplasty

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Mesh repairs for inguinal hernia are one of the commonest surgeries performed in a surgeons practice. Hernioplasty for inguinal hernia is considered to be the gold standard because of excellent results and minimal complications. The complications of hernioplasty include mesh infection, migration and rejection. Mesh rejection can be expected following mesh infection and usually manifests within few days to months following surgery. Few cases of mesh migration and erosion into peritoneal cavity have been described and these cases usually present months after surgery. Here we report a case of mesh erosion into the skin, 8 years following hernioplasty. This is the first case described in literature of mesh erosion into the skin. This is also a case wherein a complication of hernioplasty manifested as late as 8 years following surgery. This report suggests that mesh related complications are unexpected and can manifest any time after surgery.

Keywords: Hernioplasty, Inguinal hernia, Late-onset, Lichensteins repair, Mesh complications

INTRODUCTION

Inguinal hernia repairs are one of the oldest surgeries performed in history. We have gradually evolved from an era of tissue repairs, darn repairs to mesh repairs over the past century. But still many surgeons accept the fact that mesh repairs are the gold standard for inguinal hernia. Being the bread-and-butter of surgical practice, inguinal hernia repairs are one of the most common surgeries performed throughout the world. Though one of the oldest, it continues to evolve and fascinate today’s surgeons because of the advances in the mesh used for repair. Whatever advances are achieved, meshes being foreign bodies have the chance of rejection though the incidence is less. How often have we come across a case of mesh migration or mesh rejection following hernioplasty? How often have we heard of a complication of mesh hernioplasty manifesting 8 years after surgery? These are once a lifetime experience for a surgeon. Not to forget, such devastating complications are a nightmare for the operating surgeon.

This is a case report of mesh erosion into the skin, 8 years after hernioplasty. This is the first of its kind report with respect to erosion into skin and late-onset complication in a case of inguinal hernioplasty.

CASE REPORT

A 68-year-old male patient presented to the outpatient department with the history of mesh protruding from the skin since 1 month (Figure 1). He initially had itching sensation in the inguinal region since 6 months which later developed into an erythematous skin lesion. Gradually the erythematous lesion turned into ulcer, with constant itching, which deepened to expose the mesh (Figure 2). He had undergone inguinal hernioplasty 8 years back. Patient was not having any comorbid illness or history of allergies.

A retrospective search of patients medical records was done to find out the cause for mesh erosion. On analyzing the records, it was found that the patient had a direct inguinal hernia for which lichenstein tension-free mesh repair was performed. Intra-operatively there was no complication and a course of antibiotics was given for the next 5 days. Post-operative records were also uneventful without any evidence of seroma, hematoma or wound infection. Follow-ups over the next 6 months were also uneventful. Patient was comfortable over the next 8 years until he developed itching and an erythematous lesion 6 months back, which gradually developed into an ulcer, deepening to expose the mesh since 1 month. To the surprise, patient did not have any other complaints apart from itching. This may be the cause for such late presentation.
Immediately the case was posted for surgery. After debriding the wound, mesh was removed as well the prolene sutures used. There was no evidence of infection in the wound. A thorough wash was given and Bassini’s repair was performed. Though there was tissue loss, primary suturing of the wound was possible and hence done. Post-operative recovery was uneventful and the patient was discharged on the fourth post-operative day. Patient is in regular follow-up from the past 1 year and is having a normal lifestyle.

**CONCLUSION**

Mesh hernioplasty is the standard treatment for inguinal hernia. Though there are complications associated with the procedure, they are so minimal that one may not come across them during ones practice. But such rare and unexpected manifestations increases our apetite for medicine and increases our vigilance towards mesh related complication.

Mesh migration is described after all varieties of mesh repairs but for plug techniques in particular. Migration to the intestines, cecum, urinary bladder, femoral vein, preperitoneal space and the scrotum have been reported.

The incidence of mesh infection ranges from 1% to 8% in different case series. The possibility of mesh-related infection should be considered in any patient presenting with history of fever of unknown origin and features of abdominal wall inflammation. Mesh related infections may present from months to years after inguinal hernioplasty. Mesh infection may be the initiating factor for mesh rejection or erosion which can manifest within months, to as late as 3 years, the highest described in literature till now. But late graft infection does not seem to correlate to neither the administration of antibiotic prophylaxis, nor to the presence of previous superficial wound infection. Also, graft infection does not seem to correlate to the type of mesh inserted, with even the newly developed prolene hernia system also showing mesh related complications. Staphylococcus aureus is the most common organism identified in mesh related infections. Hence the antibiotics should always include coverage against *Staphylococcus aureus*. Conservative treatment can be initially followed in case of mesh infection. But those resistant to conservative management almost always necessitates mesh removal following which the mesh infection completely disappears.

In our case, there was no evidence of superficial wound infection in the post-operative period and also antibiotic prophylaxis was given. Still, the patient developed signs of abdominal wall inflammation after 8 years. This seems to correlate with the available literature that previous wound infection is not a prerequisite for late mesh infection or rejection. In this case mesh eroded the anterior abdominal wall which is not described till now. Also the patients symptoms completely disappeared following mesh removal. This also supports the fact that mesh was the etiological agent for all these problems. These results strengthen the fact that mesh related complications are unexpected and can manifest any time after surgery.

To conclude, mesh related complications like infection, migration, rejection and erosion are very rare and can present any time after surgery. Literature is minimal regarding these complications. A high index of suspicion is needed to diagnose these conditions and treatment also needs to be tailored as per the clinical scenario.

**REFERENCES**


