

# RARE OCCURRENCE OF ENTEROCUTANEOUS FISTULAE FOLLOWING ONLAY MESH REPAIR FOR INCISIONAL HERNIA: A CASE SERIES

A Case Study By Shah BC, Degloorkar S, India

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## ABSTRACT

Enterocutaneous fistula (ECF) is a rare and late complication following mesh repair for incisional hernias. This report is a case series of two patients reporting ECF following 10 and 13 years after open surgery for the incisional hernia. Laparotomy was performed in both and the defect was repaired by anatomical closure without a mesh. This case report emphasizes that although polypropylene mesh has been shown to be relatively safe in many studies, it can at times be associated with long-term ECF.

## KEYWORDS

Complications, Mesh repair, EC fistula

## INTRODUCTION

Mesh repair is recommended as the first-line surgical management for abdominal hernias as the recurrence rates are significantly lower. [1] Of the two types of meshes used, polypropylene mesh has been associated with a lower incidence of post-operative complications including infections, ECF and recurrent hernias relative to multifilament polyester mesh and is widely used now-a-days. [2] Mesh repair using onlay technique is found to be safe and effective for incision hernia. [3] Although, recurrences of the hernia and seroma formation were reported to be the most common complications following onlay repair of incision hernia, reports of ECF are contradictory. [4, 5] We describe here two cases of ECF as a long-term complication following onlay mesh repair for incision hernia.

### Case 1:

A 40 year old female, who was operated for incision hernia following a caesarian section with onlay mesh repair using polypropylene mesh 10 years ago, presented with the complaints of

swelling and pain in the infraumbilical region for the past 2 weeks Contrast enhances computed tomography (CECT) revealed clumping of bowel loops adhering to the abdominal wall. There was no evidence of contrast leak suggesting ECF but an exploratory laparotomy that was performed after obtaining written informed consent from the patient revealed the discharge of a faeculent material with erosion of the mesh by the bowel loop. Mesh was removed and the abdomen was closed in layers.

### **Case 2:**

A 58 year old female with concurrent diabetes mellitus and systemic hypertension, who had two episodes of open onlay mesh repair (the first 13 years ago and the second 10 years ago) in the past, presented with the complaint of non healing abscess in the abdominal wall (Figure 1) for the past 6 weeks. CECT abdomen showed clumping of bowel loops to the abdominal wall without any contrast leak. Exploratory laparotomy revealed ECF (Figure 2). The mesh was excised along with the bowel loop and the abdomen was closed in layers.

## **DISCUSSION**

Incision hernia may be treated by either a simple repair or by using mesh. Although, reports indicate a lesser incidence of recurrence of hernia following the use of mesh, controversy exists in literature about its effectiveness. [6] Different techniques of mesh repair have been advocated, but onlay has been found to be more safe and effective than the others.

ECF following onlay mesh repair for incisional hernia is less common than after subfascial repair. [2, 7] Studies have shown that multifilamented polyester mesh, excision of hernia sac, lack of omental interposition and the presence of fascial gap are associated with a higher incidence of ECF. [2] Although ECF has been reported within few months following repair of the hernia, it is usually a long-term complication being reported after many years. [8-10] Even the present series reports these following 10 and 13 years of surgery. ECF occurs usually due to a chronic erosion of bowel by the mesh placed which is in direct contact with intestinal loops. [11] Although Basoglu [12] has recommended omental coverage to decrease the contact of the mesh with the intestinal loop and thereby the chances of ECF, we are unaware of whether this was performed in our patients.

To conclude, ECF following onlay mesh repair is uncommon and occurs as a late complication. Placing omentum between the mesh and the intestinal loop may aid in preventing ECF.

Conflict of interest:

There is no conflict of interest.

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**FIGURE 1. NON HEALING ABDOMINAL ABSCESS**



**FIGURE 2. EXCISED PART OF THE INTESTINE WITH FISTULAE**



## **THE EFFECT OF COMBINED ORAL CONTRACEPTIVE PILLS (COCP) CONTAINING**