Mesh-Related Early Small Bowel Obstruction Following Laparoscopic Incisional Hernia Repair
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Citation

Abstract
Small bowel obstruction in the early postoperative period following laparoscopic incisional hernia repair is a known complication. It is usually port- or mesh-related. We describe the management of such a mesh-related early small-bowel obstruction. The role of CT scan has been emphasized. Early laparoscopy is recommended. A combined laparoscopic and open approach has been adopted to minimize the risk of bowel injury from uncoated surface of the mesh and at the same time maintain the potential benefits of minimal access surgery.

The work was done in the department of Surgery & Radiology at Leeds General Infirmary, Leeds, UK

INTRODUCTION
Small-bowel obstruction following laparoscopic incisional hernia repair is a recognized complication. We describe our management of one such case.

CASE REPORT
A 48-year-old man underwent laparoscopic repair of a large incisional hernia following previous adrenalectomy for phaeochromocytoma. Repair was performed with composite mesh secured with Pro Tack double crown. He developed early postoperative small-bowel obstruction. CT revealed a small-bowel loop between the mesh and the abdominal wall [Fig. 1-2] which could not be felt on clinical examination.

Figure 1
Figure 1: Loop of small bowel in the abdominal wall between the tackers.
Figure 2
Figure 2: Loop of herniated small bowel showing transition point of dilated proximal bowel.

He was taken back to theatre. At laparoscopy gentle traction to release the small bowel failed. A small incision was made over the obstructed loop which was freed from the uncoated side of the mesh by finger dissection. The mesh was reattached with sutures where a tack had not been secure.

Mesh fixation and bowel were checked laparoscopically. The patient’s recovery was uneventful.

DISCUSSION
The incidence of small-bowel obstruction following laparoscopic hernioplasty is about 2.5% [1]; it is usually port- or mesh-related. CT scan is a valuable imaging tool in such patients [2]. Early laparoscopic intervention is an accepted management option [3].

In this case a combined laparoscopic/open approach was required because small bowel was densely adhered to the uncoated surface of the mesh. Attempts to release bowel by traction carry a significant risk of bowel injury. Release of the bowel may best be performed by an open approach; the laparoscope allows identification of the exact site of obstruction, allowing a precisely placed small incision to be made, thus maintaining the potential benefits of the laparoscopic approach to repair large incisional hernias.

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References
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