

Double port site hernias following laparoscopic cholecystectomy: Case report

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ABSTRACT

A port site hernia is rare type of incisional hernia. This paper reports on a case of herniation through both 10 mm port sites following an uneventful laparoscopic cholecystectomy. The hernias were repaired using a laparoscopic approach with two separate intraperitoneal onlay meshes. Port site hernias are rare but well-known laparoscopic complication; however, no case of double port site hernias has been reported in the indexed journals to date. When a patient is admitted with an evident hernia at one port site, all port sites should be carefully evaluated for herniation.

Keywords: Cholecystectomy; hernia repair; laparoscopy; mesh; port site hernia.

Introduction

Laparoscopic surgery provides advantages to both surgeons and patients, however, it cannot eliminate all the problems associated with open surgery. Postoperative herniation through the small incisions used for laparoscopic ports may develop, even though the incidence is lower than the incisional hernia rate for open abdominal operations.^[1] While early case studies reported laparoscopic herniation as low as 0.1% at port sites,^[2] a recent systematic search revealed an overall incidence of 1.7%.^[3] The vast majority of port site hernias are seen at larger trocar sites. Consequently, closure of fascial defects in ports that are 10 mm or larger is advised.^[4] It is also possible to find incisional hernias at 5 mm port sites.^[5] Herniation at multiple port sites appears to be rare and has not been reported in the indexed journals to date. A case with herniation through both 10 mm port sites following an uneventful laparoscopic cholecystectomy is reported in this paper.

Case Report

A 64-year-old gentleman was admitted with a complaint of bulging at his umbilical region. Four years earlier, he had undergone an uneventful laparoscopic cholecystectomy. The bulging emerged two years after the surgery and became larger and more painful over time. The patient's body mass index was 30.7. The physical examination revealed a hernia with minimal reducibility at the subumbilical port site of the previous laparoscopic surgery. Another small and reducible hernia was detected at the epigastric port site. The patient had no previous history of abdominal wall hernias, and no other hernias were found in the examination. Computed abdominal tomography confirmed the presence of the hernias (Fig. 1). After discussing the treatment options with the patient, a laparoscopic approach was planned to repair both hernias.

Laparoscopic exploration under general anesthesia



showed no adhesions to the abdominal wall except for the omental herniation through the sub-umbilical port site (Fig. 2a). The omentum was easily reduced by gentle traction, and a defect with a diameter of 25 mm was exposed. The other hernial defect at the epigastric port site was also 25 mm in diameter and free of any content (Fig. 2b). Composite mesh with a diameter of 15 cm was fixed with titanium tacks to cover the sub-umbilical defect. Another composite mesh with a diameter of 12 cm was fixed with a combination of titanium and absorbable synthetic polyester copolymer tacks (Fig. 3).

The patient was discharged on the first postoperative day. No wound complications were recorded. Oral analgesics were stopped after five days. He has been free of recurrence and chronic pain for one year.

Discussion

Port site hernias can develop as early as two days after laparoscopic surgery and may cause intestinal obstruction.^[6] It is generally recommended that 10 mm or larger port sites are closed at the end of laparoscopic procedures.^[4,7] While Tangjaroen reported that laparoscopic cholecystectomy with a four-port technique without closure of any fascial defects resulted in almost no port site hernias in a series of 294 patients,^[8] this result may reflect a difference in the incidences of clinically evident port site hernias and radiographically proven ones. Notably, Christie et al.^[9] revealed that the incidence of port site

hernias was four times higher when radiologic controls were performed.

A careful physical examination can also diagnose port site hernias in asymptomatic patients. In the present case,

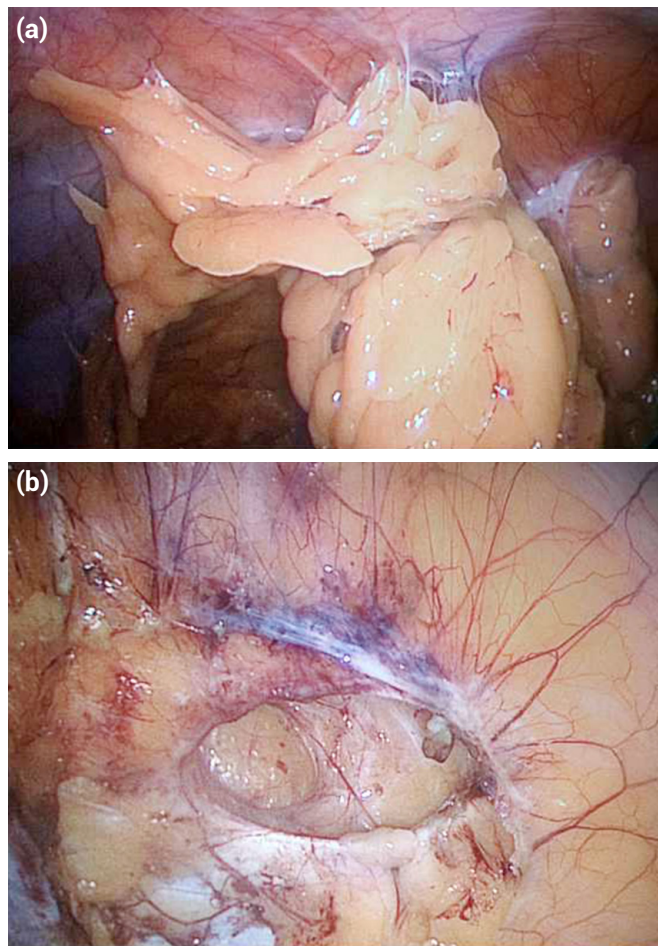


Figure 2. Intraoperative findings. (a) The omentum was herniated through the defect at the sub-umbilical port site. (b) The hernial defect at the epigastric port site was clearly observed.

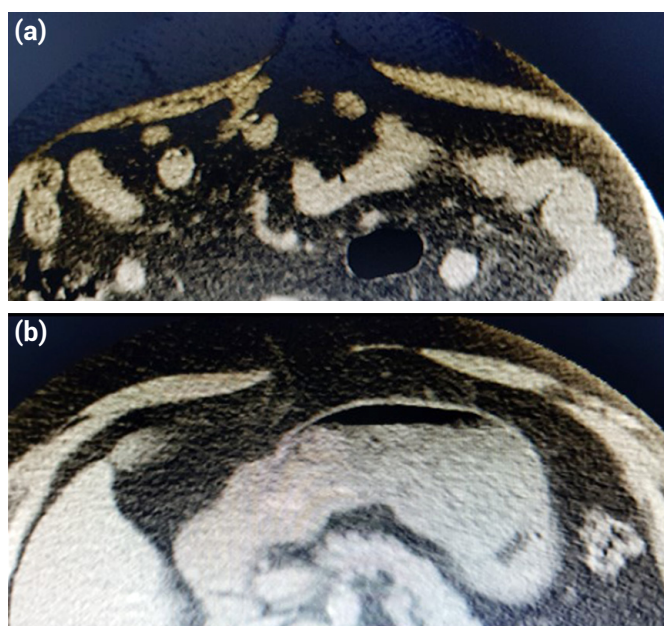


Figure 1. Tomographic views of two hernias. (a) The port site hernia at the umbilical region. (b) The epigastric defect located to the right of the linea alba.



Figure 3. Both hernial defects were covered with composite meshes with adequate overlap.

a second port site hernia was detected during physical examination and tomographic study. The second hernia was asymptomatic, and the patient was not aware of it.

Port site hernias can be repaired by either an open or a laparoscopic approach. Lambertz et al.^[5] reported 10% and 7% hernia recurrence rates after open mesh and suture repairs, respectively, in a series of 54 patients with a median follow-up of 32 months. In contrast, Skipworth et al.^[10] reported successful laparoscopic repair of 10 port site hernias with a self-centering suture technique and composite mesh. In the present case, the hernias were repaired with separate composite meshes. After one year, the patient remains free of recurrence.

Port site hernias are relatively rare but well-known complication of laparoscopic procedures. The probability of two port site hernias in a patient who has undergone an uneventful cholecystectomy is very low. However, surgeons must be aware of this possibility when they examine a patient with a port site hernia. Radiographic assistance should be obtained, especially when laparoscopic repair is considered.

Disclosures

Informed Consent: Written informed consent was obtained from the patient for the publication of the case report and the accompanying images.

Peer-review: Externally peer-reviewed.

Conflict of Interest: None declared.

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