Right lumbar abscess containing a gallstone—an unexpected late complication of laparoscopic cholecystectomy

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Abstract

During laparoscopic cholecystectomy, gallbladder perforation may occur leading to gallstone spillage and despite being rare, early or late complications may therefore develop. We report a case of a 79-year-old female, with a past medical history of a laparoscopic cholecystectomy 3 years earlier for symptomatic gallstones, admitted in the emergency department with a subcutaneous right lumbar abscess confirmed by computed tomography. Emergent abscess surgical drainage was performed and a gallstone was identified during saline lavage. Postoperative evolution was unremarkable and follow-up within a year was uneventful. Split gallstones due to gallbladder perforation during laparoscopic cholecystectomy should be retrieved in order to reduce future complications.

CASE REPORT

A 79-year-old woman presented in the emergency department with a painful right lumbar mass which had been increasing over the previous month. She denied fever, gastrointestinal and urinary symptoms or any recent trauma. Physical examination revealed a 10-cm long tender right lumbar lump with inflammatory signs suggesting to be an abscess. Laboratory investigations revealed a normal white blood cell count (9100/μl; segmented neutrophils, 68.0%), a hemoglobin level of 14.24 g/dl, an elevated C-reactive protein level (5.70 mg/dl) and normal hepatic and renal biochemical parameters. Computed tomography was performed which detected a well-defined collection of the subcutaneous tissue with 8.2 × 5.3 × 6.8 cm, with no retroperitoneal...
DISCUSSION

Laparoscopic cholecystectomy was introduced in the 1980s, and it is the gold standard to treat symptomatic gallstones and its benefits over the open approach concerning cosmetic result, postoperative pain, hospital stay, morbidity and mortality are well established [1, 2]. After the emergence of the laparoscopic technique, two complications are more frequent: injury to the common bile duct, which is a rare event, and gallstone spillage occurring due to gallbladder iatrogenic perforation. The perforations may occur during the vesicular bed dissection, during the extraction of the gallbladder through the abdominal wall or because of gallbladder retraction needed for anatomic exposure, and it is as high as 40% [6, 7].

Complications caused by intraperitoneal gallstones are very rare but may occur, especially those related to pigment stones, large solitary stones (1.5 cm) or multiple small stones [6, 8]. According to the literature, they can occur soon after the surgery or up to 20 years later [9].

The most frequently reported complications are abscess formation related. Intra-abdominal is the most common site, typically subhepatic or subphrenic, but they have already been found in unusual peritoneal anatomic regions, such as the pelvis, paraocolic, ovari, uterine tubes or in a hernia sac. The pneumoperitoneum and the peritoneal irrigation used during the cholecystectomy may contribute to the dispersion of the stones within the peritoneal cavity [3, 10]. As in the present case, migration of the stones may occur, forming distant abscesses, such as in the anterior or posterior abdominal wall and the retroperitoneal space. Migration into the pleural cavity has also been reported leading to pleuroolithiasis, empyema and hemothysis [10]. Other rare complications are related to septic shock [7].

An endeavor should be made to avoid gallbladder perforation, applying gentle dissection and identification of all the surrounding anatomy. Retrieval bags should be used to also avoid contamination of the port site. In the unfortunate event of gallbladder perforation, every possible effort should be made to retrieve the spill gallstones. Conversion to open surgery is controversial, but due to the low incidence of postoperative complications, it is not advocated [3, 6, 7].

CONCLUSION

Gallbladder perforation with gallstones spillage during laparoscopic cholecystectomy is frequent, but its resulting complications are rare and fortunately not severe. When they occur, they may manifest as an abscess which can appear years after the initial procedure. An effort should be made to retrieve all the spill stones, but those suspected to remain intra-abdominal should always be described in the operative report to elucidate future evaluation. Conversion to laparotomy for stone retrieval is not justified because the incidence of complications is low.

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