

Abdominal Wall Abscess after Laparoscopic Cholecystectomy

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Abstract

Gallbladder perforation with intra-abdominal spillage of gallstones is a common complication during laparoscopic cholecystectomy, although it is initially considered harmless. But many studies have reported on delayed intra-abdominal complications of unretrieved gallstones. A 64-year-old man who underwent laparoscopic cholecystectomy for acute calculous cholecystitis 4 months ago presented with a painful mass in the abdominal wall. Abdominal computed tomography (CT) scan showed multiple nodular lesions at the right abdominal wall suggesting an infectious condition. Diagnostic laparoscopy revealed several solid masses surrounded by an omentum of the right abdominal wall, one of which was completely excised. The histopathological diagnosis was abdominal wall abscess with stone. The patient recovered successfully with no postoperative complications.

Keywords: Laparoscopic cholecystectomy; Cholecystitis; Gallbladder; Peritoneum; Abscess

Abbreviation

CT: Computed Tomography

Introduction

Gallbladder perforation with intra-abdominal spillage of gallstones is a common complication during laparoscopic cholecystectomy, although it is initially considered harmless. J. C. Woodfield, *et al.* reported that the incidence of gallstone perforation was 18.3%, that of gallstone spillage was 7.3%, and that of unretrieved peritoneal gallstones was estimated to be 2.4% [1]. Many studies have reported on delayed intra-abdominal complications of unretrieved gallstones [2,3]. The purpose of this case report is to remind the possibility of intraperitoneal complications of gallstones leaking during surgery.

Case Report

A 64-year-old male with a medical history of hypertension and hyperlipidemia. He underwent laparoscopic cholecystectomy for acute calculous cholecystitis 4 months ago in United States America. The patient complained of right upper quadrant pain during inspiration and coughing. Physical exam revealed right upper quadrant tenderness with no peritoneal irritation sign and muscle guarding. There was a palpable mass fixed to the abdominal wall at the corresponding area. Laboratory investigations revealed an elevated white blood cell

count (10,760/ μ l), a normal high sensitivity C-reactive protein level (0.729 mg/dL), and normal range of total bilirubin (0.65 mg/dL) and direct bilirubin level (0.3 mg/dL). Abdominal computed tomography (CT) scan showed multifocal enhancing nodular lesions at the right parietal peritoneum of right abdominal wall and visceral peritoneum of transverse colon with peritoneal thickening suggesting an infectious condition like that of actinomycosis (Figure 1). Esophagogastroduodenoscopy and colonofiberoscopy showed no abnormal finding. A diagnostic laparoscopic exploration was performed for histological confirmation. Multiple firm masses surrounded by the omentum of the right epigastric wall were identified and one of them was completely excised (Figure 2). Patient was uneventful discharged postoperative 2 days. Pathologic examination of the resected specimen revealed chronic fibrosing inflammation, multifocal abscess, and foreign body reaction with 4mm size stone (Figure 3). No bacteria were found on microbiological array. The histopathological diagnosis was abdominal wall abscess. The patient was treated with outpatient oral antibiotics for 7 days, and the intraperitoneal lesion improved on an abdominal computed tomography (CT) scan taken 3 months after surgery, and the uneventful follow-up was 2 years.



Figure 1: Abdominal computed tomography (CT) scan showed multifocal enhancing nodular lesions at the right abdominal wall and transverse colon with peritoneal thickening (red arrows).

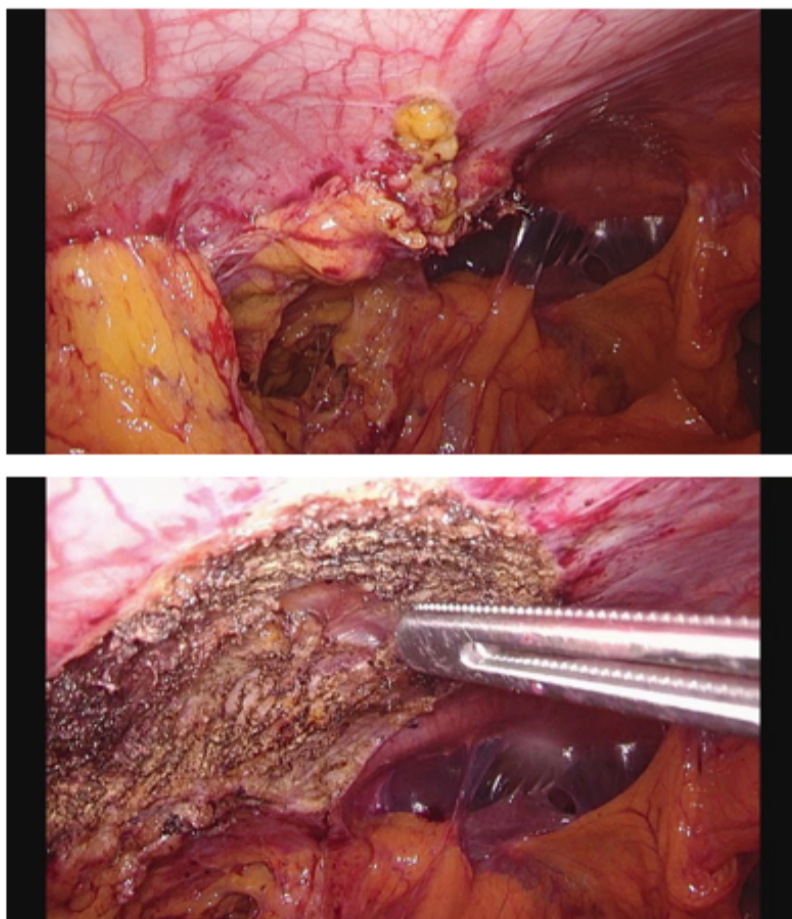


Figure 2: Diagnostic laparoscopy revealed several solid masses surrounded by an omentum of the right abdominal wall, one of which was completely excised.

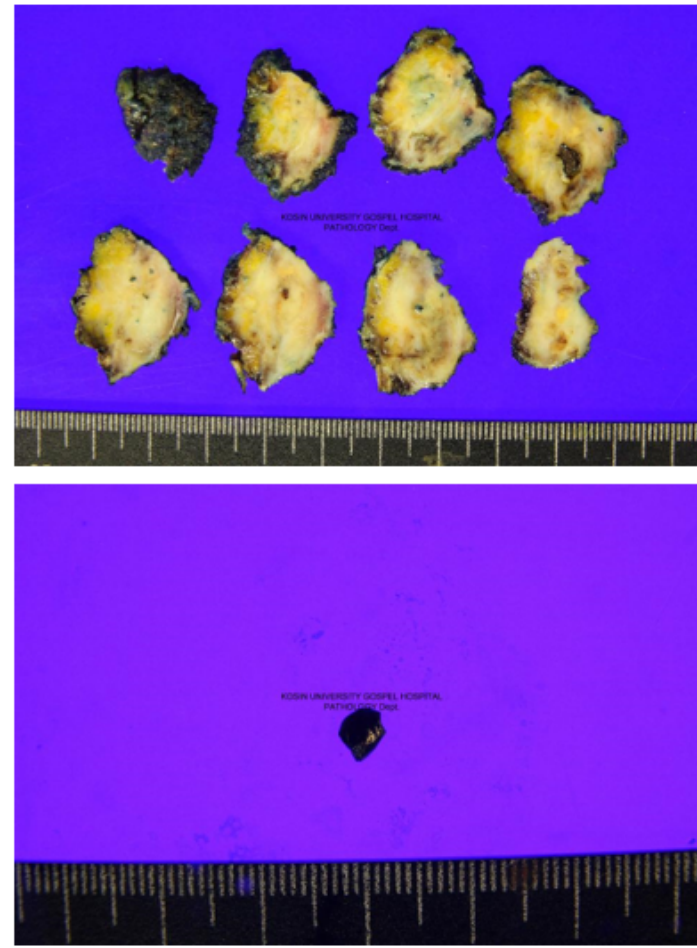


Figure 3: Pathologic examination of the resected specimen revealed chronic fibrosing inflammation, multifocal abscess, and foreign body reaction with 4 mm size stone.

Discussion

Complications are reported to occur in about 8.5% of lost gallstones, and risk factors such as acute cholecystitis of the infected bile, pigment stones, multiple gallstones (> 15), and the size (> 1.5 cm) and age of gallstones have been reported [4]. It is important not to burst the gallbladder during surgery, and if gallstones have leaked, it is recommended to remove all possible gallstones with a grasper and intraperitoneal lavage.

Conclusion

Abscesses in unusual locations in patients who recently underwent cholecystectomy for calculous cholecystitis should be suspected as the cause of gallstone spillage from previous surgery. In the case of surgery for calculous cholecystitis, extreme caution is required for gallstone spillage.

Conflicts of Interest

The authors have no conflicts of interest.

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