

## Single Case

# Cholecystoparietal Fistula Revealed by an Epigastric Abscess

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## Keywords

Cholecystocutaneous fistula · Gallbladder abscess · Acute cholecystitis · Ultrasound-guided aspiration · Cholecystectomy · Biliary fistula · Biliary injury

## Abstract

Cholecystocutaneous fistula, the ultimate complication of abscessed or overlooked acute cholecystitis, is due to perforation of the gallbladder in the abdominal wall. The authors report an unusual case of cholecystoparietal fistula revealed by an epigastric abscess. Fistulography and modern imaging tools make the diagnosis easier. Surgery is the best available treatment.

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Published by S. Karger AG, Basel

## Introduction

Acute cholecystitis is a pathology of inflammatory origin, usually associated with cholelithiasis, which has a high incidence in developed countries [1]. It is caused by the obstruction of the cystic duct by gallstones, release of lysolecithin, and ascending bacterial infection of the biliary fluid [2]. At this stage, surgery alone is sufficient for treatment. Overlooked or untreated, it can develop complications such as abscess, perforation, and exceptionally cholecystocutaneous fistulas. Cholecystocutaneous fistula is an unusual complication caused by perforation of the gallbladder in the abdominal wall [3]. Fistulography and modern imaging tools make the diagnosis easier. Treatment relies on cholecystectomy, surgical drainage of

the parietal abscess, and broad-spectrum antibiotherapy. We report an unusual case of cholecystoparietal fistula revealed by an epigastric abscess.

### Case Presentation

A 46-year-old patient, with a medical history of isolated and unexplored right upper quadrant and epigastric pain, presented with a painful, fluctuating, epigastric swelling of 15 days' duration. There was no fever. Clinical examination revealed a 11 × 10 cm epigastric abscess and a steady, painful hepatomegaly. Abdominal ultrasonography and CT scan (Fig. 1) showed a 15 × 12 cm left paramedian parietal collection.

Blood tests revealed WBC of 12,000/mm<sup>3</sup> and inflammatory anemia of 9.8 g/dl. Ultrasound-guided aspiration yielded 250 mL of fetid pus, and a drain was inserted for irrigation. Gastroduodenal endoscopy showed a vast bulbar ulcer, and *Helicobacter pylori* was found to be present on pathological examination of the gastric biopsies. Ulcer treatment with *H. pylori* eradication was then initiated. However, because of an increase to 500 mL/day of parietal suppuration output, it was decided 1 week later to use a surgical drainage. An abscessed gallbladder containing multiple gallstones was found and had fistulated in the abdominal wall (Fig. 2). Cholecystectomy was done and a multitubulated drain was put in front of the vesicular bed and brought out on the right side. A biliary fistula occurred on the 5th postoperative day, discharging through the drain site. A reoperation was performed during which no biliary injury could be found. Peritoneal lavage and large subhepatic drainage were carried out.

### Discussion

The distinctive characteristic of our clinical case is related to the pattern of the clinical revelation of the cholecystoparietal fistula and to the failure of the imaging examinations.

Spontaneous cholecystocutaneous fistula, the ultimate evolution of cholecystoparietal fistula, is a rare complication of acute, abscessed cholecystitis with or without lithiasis as origin; only 25 cases have been reported during the last 50 years [4, 5].

A lack of a history of biliary pain or a paucisymptomatic pattern is often reported in spontaneous cholecystocutaneous fistulas [5, 6]. In our patient, there was an isolated and unspecific right upper quadrant and epigastric pain. The parietal abscess occurred quietly, without fever, which is in contrast with the cases usually reported [7]. The lack of clinical signs in the recent history, which could lead to a diagnosis of acute or chronic cholecystitis, and the epigastric site of the parietal abscess have resulted in our patient in the erroneous diagnosis of a simple cutaneous abscess. The site of the parietal abscess is not really specific in the case of cholecystocutaneous fistula. In fact, even if the upper quadrant of the abdomen has been the most frequently reported site [8], the fistulization of the abscessed gallbladder can show up on the umbilicus, on the right side or the right iliac fossa [9].

The diagnostic value of abdominal ultrasonography and CT scan has been mentioned by numerous authors [10, 11]. However, in our patient, these examinations did not help, as already reported by other authors [12]. The increase of the abscess output despite a well-conducted ultrasonography-guided drainage led to the suspicion of an intraperitoneal origin. Finally, exploratory laparotomy made the definitive diagnosis possible.

The biliary fistula which occurs in the postoperative course shows the difficulties of the surgical treatment of spontaneous cholecystocutaneous fistulas. Percutaneous biliary drainage is an alternative, mainly in high-risk patients [11].

### Conclusion

In case of unspecific symptoms and a lack of a history of biliary pain, an epigastric abscess should lead to the suspicion of an abscessed gallbladder fistulized in the abdominal wall. Surgery is the best available treatment.

### Statement of Ethics

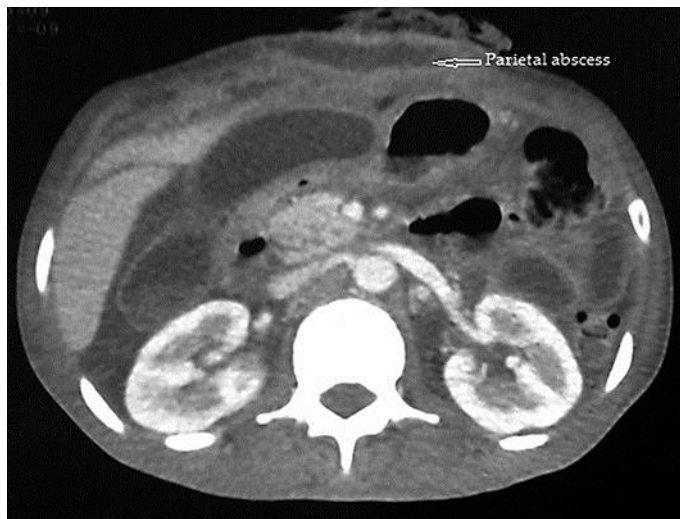
There are no ethical conflicts to declare.

### Disclosure Statement

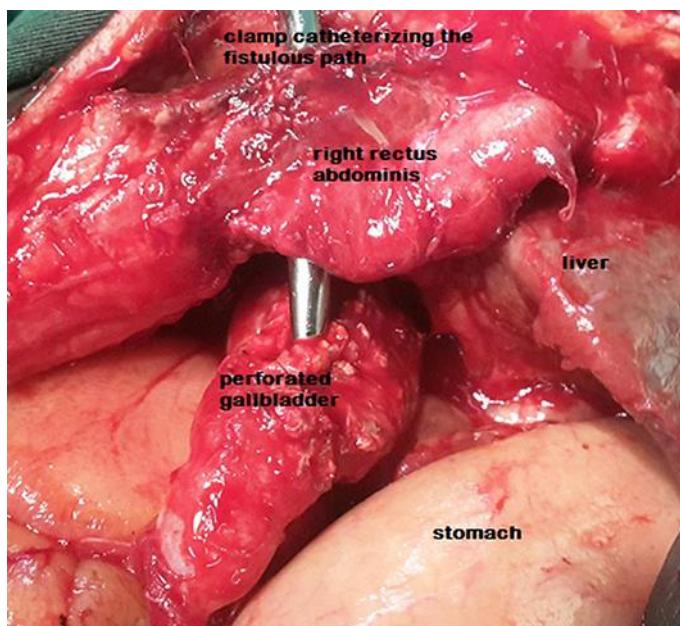
The authors declare no conflicts of interest.

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**Fig. 1.** Axial contrast-enhanced CT image showing parietal abscess (white arrow).



**Fig. 2.** Operative view. Clamp showing the path of the abscessed gallbladder fistula in the abdominal wall.