

Spontaneous Cholecystocolic Fistula: When to Think About it: A Case Report

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Abstract

The cholecystocolic fistula is a rare complication, usually of a chronic cholecystitis. The clinic presentation is variable and non-specific and common with other abdominal pathologies. Because of the abdominal anatomy, the most frequent fistula is the cholecysto-duodenal (70%), followed by the cholecystocolic (10-20%) and the least common is the cholecystogastric fistula.

Keywords: Cholecysto-colic fistula • Surgery • Colon • Cholecystitis • Gallbladder • ERCP

Introduction

We report the case of a 61-year-old male patient who presented 2 days in a row in the ER for severe abdominal pain. This case presentation demonstrates the need to have an open mind to a broad differential diagnosis for an unusual strong abdominal pain and that the evolution of an undiagnosed biliodigestive fistula can be rapidly unfavorable. The management of this uncommon but important finding is not very well described in the literature [1,2].

Case Report

A 61-year-old patient with no medical or surgical history, presented to our Emergency Department (ER) with brutal abdominal pain. He localized the pain in the epigastric region, going to his back and associated with vomiting. His physical examination indicates a cardiac rhythm at 60/min, blood pressure. At 176/110 mmHg, respiratory rate at 20/min and no fever. Abdominal exam revealed epigastric tenderness, no abdominal wall rigidity, no rebound, and no guarding, negative Murphy sign. Laboratory testing indicated a small increasing in WBC number-13100/mmc (4.000-10.000), with 91.6% neutrophilia, almost normal PCR at 7.48 mg/L (normal value less than 5). No ECG modifications were found. The right upper quadrant ultrasound was negative-no gallstones no gallbladder inflammation. The computer tomography was also negative. The patient was discharged with an indication of gastroscopy and Pantomed (Figure 1).

The next day the patient came again in our ER for the same epigastric pain, much more important this time, which restarted few hours before his arrival at the hospital, without vomiting this time, but with fever and no intestinal transit. On examination, he was found to be febrile, 38.1°C, tender in the right upper quadrant and epigastric area. His cardiac rhythm was at 124/min, his blood pressure at 152/97 mmHg, respiratory rate at 36/min. Blood examination revealed WBC at 12.800/mmc, neutrophilia at 95.5%, PCR 340 mg/L, D-dimers >4 mcg/ml (<0.50), total bilirubin 4.75 mgr. % and direct bilirubin 3.1 mgr. %, lactic acid at 23.6 mgr. % and important hepatic enzymes perturbation-GOT 388 mU/ml (<190), GPT 234 mU/ml (<41), Gamma GT 124 (<250), LDH 615 (<250). Hemocultures were made- the result after 48 hours: *Klebsiella oxytoca* antibiotics multi sensitive. Right upper quadrant ultrasound

revealed profound modifications comparing to the day before- gallbladder wall thickening, aerobilia and cystic dilation. In addition, with the ultrasound findings, computed tomography of the abdomen revealed acute cholecystitis, aerobilia and a fistula between the inflamed gallbladder and the right angle of the colon. So, the diagnostic was cholangitis and cholecysto-colic fistula (Figures 2 and 3).

An empiric Augmentin 2 g antibiotherapy was started. The treatment chooses next day was a decompression of the biliary tree by percutaneous cholecystostomy drainage with a pigtail devise. Two days later the patient had an ERCP with a selective catheterization of the common bile duct and sphincterotomy with pus and calculus evacuation. The biliary duct was free after radiologic control. The antibiotic was changed, Cefuroxime Metronidazole 10 days. The patient was discharged two days later, and evolution was favorable, one week after his blood tests were almost normalized and the drain evacuated approximately 20 cc/day. Three weeks later the patient underwent to an open cholecystectomy and fistula closure.

Discussion

The cholecystocolic fistula is a rare complication, who can reach 10-20%



Figure 1. Abdominal normal tomography.

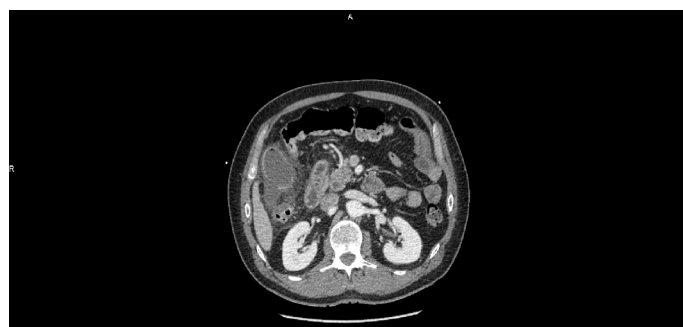


Figure 2. Abdominal tomography-Cholecystocolic fistula - View 1.

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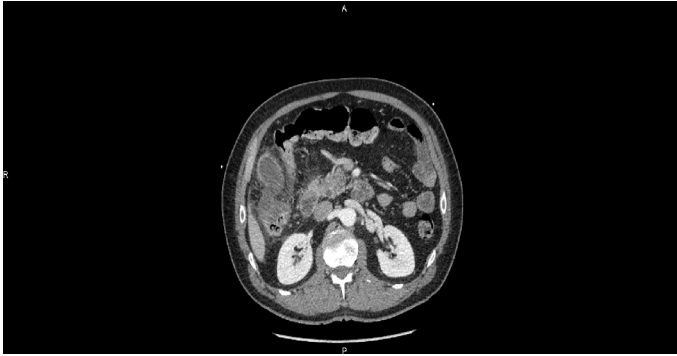


Figure 3. Abdominal tomography-Cholecystocolic fistula - View 2.

of all biliary-enteric fistulas. Usually, the cause is a cholecystitis in 0.13% of the cases [3]. Biliary-enteric fistulas are encountered in less than 1% of patients with biliary pathology [1,4]. Of these, cholecystoduodenal fistulas account for over 70%, while cholecystocolic fistulas constitute 8% to 20%.⁵ The incidence of cholecystocolic fistulosis is approximately 0.06% to 0.14% of patients undergoing cholecystectomy and in 90% of these cases diagnosis is made during surgery [5]. Chronic calculous cholecystitis is the most common cause of cholecystocolic fistulas (more than 90% of cases). Other causes include diverticular disease, biliary or colonic malignancy, and inflammatory bowel disease, abdominal trauma. Chronic diarrhea is the most common symptom (70%) as bile salts enter the colon, bypassing the enterohepatic circulation. Abdominal pain, weight loss, and dyspepsia are other symptoms [4,5]. Patients with biliary-colonic fistula are at an increased risk of recurrent cholecystitis, cholangitis, and gall bladder cancer. Investigations may reveal pneumobilia on plain abdominal x-ray or fistula on barium enema, ERCP, and computed tomography scan. ERCP and sphincterotomy (with removal of duct stones, if any) may reduce the intra biliary pressure and help the fistula close. This is the treatment of choice for elderly and high-risk patients [6]. Definitive surgical management may necessitate open cholecystectomy and segmental colonic resection.

Conclusion

The particularity of our case is that the patient started to have important abdominal pain without any biologic or imagistic findings during his first ER presentation and the evolution was rapidly to a cholangitis and cholecystocolic fistula, in less than 24 hours. The diagnosis was not made during surgery, but with a computer tomography. The patient did not have any of the usual symptoms, unless the epigastric pain and nausea, because he developed an acute cholecystocolic fistula with cholangitis, so he did not have time to develop other symptoms. In the ER we need to keep our mind open to a broad differential diagnosis for abdominal pain. The preferred treatment was the decompression of the biliary ducts by percutaneous cholecystostomie and ERCP for diminishing the local and biological inflammatory syndrome a cholecystectomy plus colectomy in a second time.

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