Acute acalculous cholecystitis due to Campylobacter jejuni: should we operate?

G. Verzotti, M. Muradbegovic, R. Schneider

Introduction
Acute cholecystitis (AcC) is a frequent pathology in abdominal surgery. Inflammation of the gallbladder is due most frequently to the presence of gallstones or sludge which causes clogging of the cystic duct and the secondary bacterial infection. Acute acalculous cholecystitis (AAC) is an inflammation without calculations. This form represents between 5% to 15% of all AcC. This disease is mainly diagnosed in intensive care patients, but more rarely it could be found in healthy patients who are not hospitalized.

Method
A 47 years old healthy man presented in the emergency room with crampy epigastric pain, with 38.5°C and freezing, vomiting and diarrhea with mucus. Bowel sounds were diminished and he had a palpable mass in the right upper quadrant, with positive Murphy sign. Blood tests showed only a leukocytosis of 15.5 G/l, and CRP of 11 mg/l. Ultrasound showed a slight dilatation of the intrahepatic bile ducts measuring 0.5 cm, a distended gallbladder, measuring 9 cm, with a pain provoked by the moving of the probe, corresponding to a positive radiological Murphy sign, with thin walls and no gallstones.

Result
The patient was placed nil per os, with analgesia and intravenous hydration. Blood and stool culture were made. On day-1, the clinic was unchanged and blood tests were worsening with a leukocytosis of 16.1 G/l and a CRP of 130 mg/l. We started intravenous Amoxicillin-clavulanate. On day-2 we performed upper endoscopy to rule out a gastric ulcer or neoplasm: it showed an erythematous gastropathy, but no ulcer or erosive lesions. MRI cholangiogram showed no stones in the gallbladder or bile ducts, which were not dilated. On day-3 the patient had no more fever, his abdomen was soft and non tender, the gallbladder was no longer palpable and CRP was 25 mg/l. The patient still had diarrhea with mucus and blood traces, but diminishing. Because of clinical and biological improvement, we chose a conservative attitude and the patient was discharged with Amoxicillin-clavulanate per os for a week. Patient stool cultures were positive for CJ. We checked the patient one week later: his abdomen was soft and non tender, he had no more fever, the diarrhea and the vomit were over.

Conclusion
Since 1995, CJ is the most common pathogen responsible for food poisoning in Switzerland with 8,432 cases reported in 2012. Contaminated food is the main source of infection, with incorrectly prepared meat and poultry as the primary source of the bacteria. CJ causes different kind of symptoms as diarrhea, abdominal pain, bloody stools, fever, nausea and vomiting. AAC due to a CJ is a rare disease that can affect healthy patients with or without gastroenteritis. We identified 15 similar cases in the literature, only 5 had gastroenteritis and only 2 were treated conservatively with antibiotics. All the others were treated with emergency cholecystectomy. Young and healthy patients can develop AAC due to CJ. This bacterium should be considered in patients with acute acalculous cholecystitis and without any known risk factors. In this situation, conservative treatment with antibiotics is feasible and surgical management is not mandatory.

References
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