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Perforated emphysematous cholecystitis and *Streptococcus bovis*

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Key words: Acute cholecystitis. *Streptococcus bovis*. Emphysematous cholecystitis.

Dear Editor,

We present the case of an 80-year-old female with a history of heart and peripheral arterial disease who presented to the Emergency Room due to nausea, vomiting and intense abdominal pain in the right upper quadrant of a 24-hour duration. On physical examination, her temperature was 37.5 °C, blood pressure was 87/43 mmHg and heart rate was 109 bpm. Abdominal guarding was present and it was very painful on palpation; Murphy's sign was also positive. Laboratory results included leucocytosis of 15.1 x 10^9/l with 90% neutrophils, and the liver panel was normal. Computed tomography identified gas within the gallbladder wall and an air-fluid level inside the lumen, with a defect in the infundibular and adjacent pneumoperitoneum. All these signs indicated perforated emphysematous cholecystitis (Fig. 1). After initial reanimation, an emergency cholecystectomy was performed and the gallbladder appearance was gangrenous with bile peritonitis. The bile culture was positive for *Streptococcus bovis.* The postoperative course was uneventful, with discharge after treatment with broad-spectrum antimicrobial therapy.

Discussion

Emphysematous cholecystitis is a rare and severe condition that can progress rapidly and is more common in older and diabetic patients (1,2). *Escherichia coli*, *Bacteroides fragilis* and *Clostridium perfringens* are organisms that are frequently isolated in bile cultures. Adequate treatment is emergent surgery and the mortality rates are around 20-25% (2). *Streptococcus bovis* is an extremely rare cause of biliary tract infection and less than 50 patients with acute cholecystitis have been described (3,4). This infection is more common in older patients with malignancy, cardiovascular disease, diabetes or hepatitis. An echocardiogram is essential due to the risk of endocarditis in patients with bacteraemia, and colon cancer should also be ruled out (4,5).

The patient has signed the informed consent and has agreed to the use and publication of the confidential information and images with a scientific purpose and without a lucrative objective. All authors have read and approved the paper submitted.

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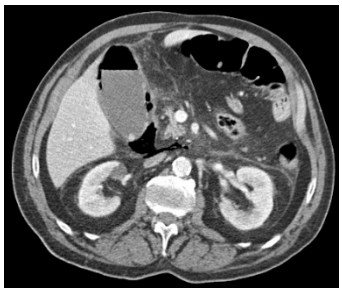

Fig. 1. Computed tomography: gas within the gallbladder wall with an intraluminal air-fluid level and adjacent pneumoperitoneum. All these signs indicated a perforated emphysematous cholecystitis.