Cystic duct necrosis, as a laparoscopic finding

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Accepted 7 January 2021

DESCRIPTION

An 88-year-old female patient presents with 72 hours of dull right upper quadrant pain after a fatty meal and gastric like emesis. Previous medical record of hypertension, left haemicolectomy due to colon cancer and hysterectomy. Arriving with tachycardia of 105, blood pressure of 130/70 and 35.5°C. At physical examination, she presents hyperalgesia and hyperesthesia, pain at palpation of right upper quadrant and positive Murphy's sign. Laboratory tests with haemoglobin of 16.8, leucocytosis 25.800 with neutrophilia 87%, procalcitonin 2.64, C reactive protein 18.4, glucose 159, total bilirubin 1.63, lactate dehydrogenase 418, rest within normal range. Abdominal ultrasound with acute cholecystitis, probably hydrocholecyst. Laparoscopic approach to cholecystectomy with multiple adhesions and pericholecystic inflammatory process, biliary leakage to the peritoneum and a gangrenous gallbladder (video 1). After dissection of hepatocystic triangle and achieving critical view of safety a necrotic cystic duct is identified

Video 1 Surgical video a large, distended, gangrenous gallbladder with multiple epiploic-gallbladder and epiploic-abdominal wall adhesions and bile peritoneal fluid, a necrotic duct in all its extension to the cholecystic junction and management with three staples proximal to cholecochus. We can observe a necrotic duct in all its extension to the cholecystic junction and management with three staples proximal to cholecochus.

Learning points

- ▶ A totally necrotic cystic duct must be approached as a probable Strasberg A biliary leak.
- ▶ On elderly patients, 'do no harm' and do not intend primary closure, better leave a drain.

into choledochal junction. We decide to manage the necrotic cystic duct by leaving three proximal staples before section of the duct and leaving a drain because of non-viable tissue. After 10 days postsurgery, we remove the drain and on 6 months follow-up no biliary fistula was developed.

Woods *et al* described leak from a necrotic of the cystic duct proximal to the endoclip maybe by capacitive coupling injury or by a secondary process due to an impacted cystic duct stone or severe inflammation, in this case, the evidence of tissue damage was evident so measures were taken in order to prevent cystic duct leak.¹ Strasberg classification A is defined as cystic duct leak or small leaks from liver bed, we took this evidence to prevent this imminent condition because of tissue unviability leaving three staples and drainage to follow possible fistula and opportunely treat with common bile duct endoprosthesis by cholangiopancreatography endoscopic.²

Contributors ARMH, AV, CGCR and GGOC worked on patient attention and writing of the article.

Funding The authors have not declared a specific grant for this research from any funding agency in the public, commercial or not-for-profit sectors.

Competing interests None declared.

Patient consent for publication Obtained.

Provenance and peer review Not commissioned; externally peer reviewed.

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To cite: Vela A, Ortiz Cantu GG, Robles Méndez Hernández A, *et al*. *BMJ Case Rep* 2021;14:e239340. doi:10.1136/bcr-2020-239340

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