Gas Gangrene of the Liver after a Choledocho-Jejunostomy

M.G. Buimer E.J. Spillenaar Bilgen

Department of Surgery, Rijnstate Hospital, Arnhem, The Netherlands

A 57-year-old female was referred to our surgical department because of a carcinoma in the head of the pancreas. We performed a laparotomy and found a metastasis next to the hepatic artery and therefore a choledocho-jejunosomy and a gastro-enterostomy were created. The patient recovered rapidly. Unexpectedly, the day before the planned discharge, she developed abdominal pain in the right upper quadrant with fever up to 39°C. Laboratory studies showed a white cell count of 47,700/mm³ and

C-reactive protein of 253 mg/l. Liver tests showed an alkaline phosphatase of 270 IU/l, alanine aminotransferase of 707 IU/l, aspartate aminotransferase of 1,912 IU/l, total bilirubin of 59 µmol/l, lactate dehydrogenase of 4,678 IU/l and γ-glutamyl-transpeptidase of 94 IU/l.

A CT scan revealed partial necrosis of the liver, especially the left liver lobe, with extensive air in the bile ducts and the parenchyma concordant to gas gangrene (fig. 1, 2). Several hours later the patient died. At autopsy, the

Fig. 1. CT scan showing necrosis of the liver with air in the bile ducts.

Fig. 2. CT scan with necrosis of the left liver lobe and partial necrosis of the right liver lobe with air in the bile ducts.

pathologist found diffuse gas gangrene of the liver with total necrosis of the left liver lobe. There were no signs of leakage at the choledocho-jejunostomy and gastro-enterostomy.

Microscopy showed extensive necrosis with cavities in the liver parenchyma surrounded by Gram-positive bacteria. Cultures of liver parenchyma revealed *Clostridium perfringens*.

Since the first description of gas gangrene of an organ by Fraenkel in 1889, few cases of acute organ failure following acute *C. perfringens* infection have been described in the literature [1–4].

References

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