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Case report of mucosal ischemia following left hepatectomy: Unveiling a rare postoperative complication

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Abstract

Introduction: Gastric Mucosal Ischemia (GMI) following left hepatectomy is a rare post operative complication, never described in literature.

The presented image illustrates the uncommon postoperative complication of Gastric Mucosal Ischemia (GMI) following Liver Resection (LR).

Case presentation: A 60-year-old woman underwent left hepatectomy with lymphadenectomy for intrahepatic cholangiocarcinoma. The patient developed intense abdominal pain in 9th Postoperative Day (POD). The subsequent CT scan described: "a 6 cm biloma, pressing and displacing the antral region of the stomach, air emboli in the short gastric veins, edematous wall thickening of the fundus with regions of reduced or absent mucosal enhancement, highlighted with green arrows". Following conservative treatment, the patient fully recovered, being discharged on the 28th POD.

Conclusion: GMI is an infrequent complication encountered after LR. In this case it is attributed to an exceptional observation: the mechanical effects of the biloma causing compression and displacement of gastric vessels, resulting in compromised blood supply to the gastric mucosa and subsequent ischemia.

Keywords: Gastric mucosal ischemia; Biliary fistula; Left hepatectomy; Liver resection; Colangiocarcinoma.

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Introduction

Gastric Mucosal Ischemia (GMI) following left hepatectomy is a rare post operative complication, never described in literature.

Biliary leak is the most common cause of postoperative morbidity after hepatic resection, leading to prolonged hospital stay and drainage tube manteinance, but also worst long-term outcomes in oncological patients delaying the start of chemyotherapies [1].

This case report describes a rare case of gastric mucosal ischemia caused by biliary leakage after left hepatectomy.

Case report

A 60-year-old woman underwent left hepatectomy with lymphadenectomy for intrahepatic cholangiocarcinoma. The patient developed intense abdominal pain in 9th Postoperative Day (POD).

The subsequent CT scan (Figure 1) described: "a 6 cm biloma, pressing and displacing the antral region of the stomach, air emboli in the short gastric veins, edematous wall thickening of the fundus with regions of reduced or absent mucosal enhancement, highlighted with green arrows". Following conservative treatment, the patient fully recovered, being discharged on the 28th POD.

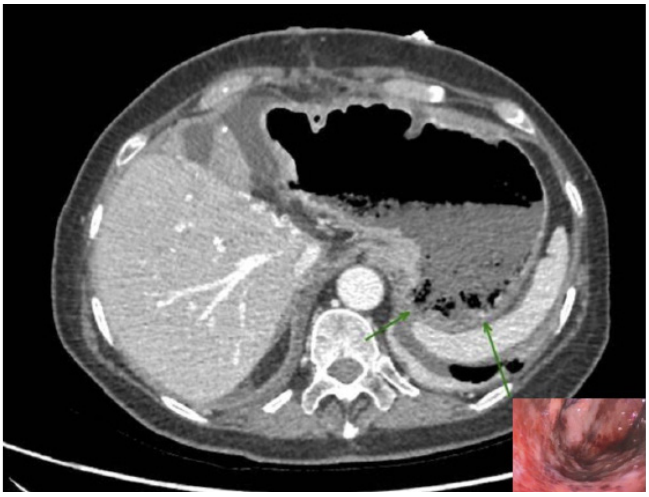

Figure 1: CT scan with biloma compressing stomach and signs of mucosal ischemia (green arrows) and gastroscopy with mucosal ischemia in lower right panel 470x264 mm (72x72 DPI).

Discussion

The presented image (Figure 1) illustrates the uncommon postoperative complication of Gastric Mucosal Ischemia (GMI) following Liver Resection (LR).

GMI is an infrequent complication encountered after LR. In this case it is attributed to an exceptional observation: the mechanical effects of the biloma causing compression and displacement of gastric vessels, resulting in compromised blood supply to the gastric mucosa and subsequent ischemia. The diagnosis is displayed by both the CT scan and subsequent gastroscopy shown in the lower right panel of the image.

Bile leak remains one of the most significant complications in liver surgery [1]. In this presentation, we are witnessing an extraordinary finding, a rare instance that to our knowledge, has never been documented before in literature. The pathophysiological mechanism might be linked to that of Delayed Gastric Emptying (DGE) after left hepatectomy. DGE is probably caused by adhesion between the stomach and the cut surface of the liver and displacement of the stomach [2]. Similarly, TGMI in this instance seems to be the result of a biloma coming from the cut liver surface compressing the gastric vessels.

Presenting this image might aid in the early detection of similar complications by other medical practitioners, promoting timely intervention. In fact, early recognition to initiate appropriate management significantly contributes to favorable patient outcomes. Continued research and exploration of novel preventive strategies to minimize bile leak are warranted to further enhance patient care and surgical outcomes in the field of liver surgery [3].

Declarations

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