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CLINICAL IMAGE

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A case of hepatic portal venous gas that resolved with conservative treatment

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Abstract

Hepatic portal venous gas (HPVG) is a potentially fatal condition. If vital signs are normal and laboratory data are not suggestive of any necrotic changes, a follow-up computed tomography after a conservative procedure can be performed at short intervals to conservatively monitor the patient.

KEYWORDS

hepatic portal venous gas, ileus

1 | CASE

A 70-year-old man presented to our hospital with a chief complaint of vomiting. He had a history of abdominal aortic aneurysm surgery and recurrent postoperative adhesive bowel obstruction. Based on computed tomography (CT) scans, we diagnosed him with adherent bowel obstruction. We then inserted a nasogastric tube and performed decompression, and the patient's condition immediately improved. On admission, his vital signs were normal. Blood test showed slight increases in white blood cell count; arterial blood gas analysis showed no acidosis. However, about 7 hours after admission, a detailed review of CT scans revealed gas in the intrahepatic portal vein (Figure 1). The abdominal findings were mild and initially misinterpreted as pneumobilia. Thus, we monitored him carefully, and 8 hours after admission, another CT scan was performed which showed that the portal venous gas had disappeared (Figure 2). We hypothesized that an increased intestinal pressure resulted in the migration of gas from the bowel into the portal vein.[1,2]

Hepatic portal venous gas (HPVG) or pneumobilia can be diagnosed based on the distribution of intrahepatic gas. HPVG should be considered if gas is peripherally distributed in the liver, and pneumobilia should be considered if the gas is centrally concentrated.

ACKNOWLEDGMENTS

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CONFLICT OF INTEREST

None declared.

AUTHOR CONTRIBUTIONS

HK: drafted the manuscript. HT, YN, YS, and HY: revised the manuscript. HK, HT, YS, YN, and HY: read and approved the final manuscript.

CONSENT

Informed consent was obtained from the patient for the publication of this clinical image.

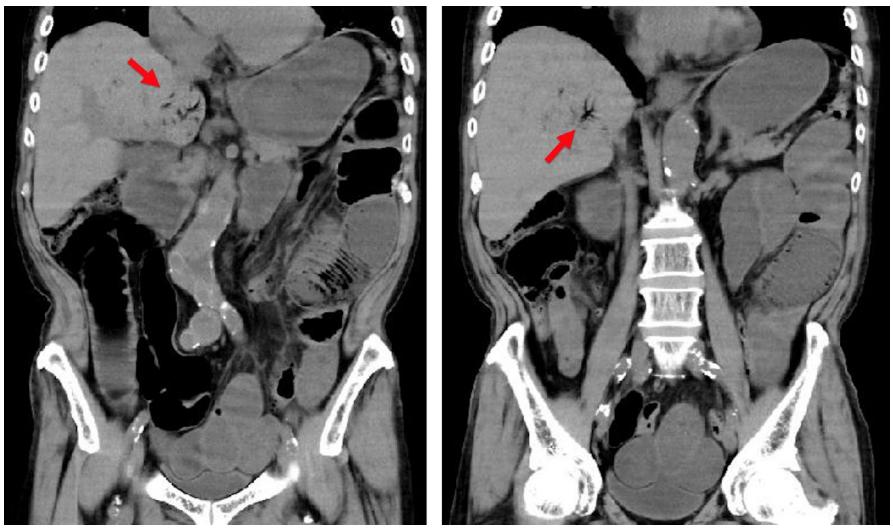

FIGURE 1 Computed tomography scan before decompression

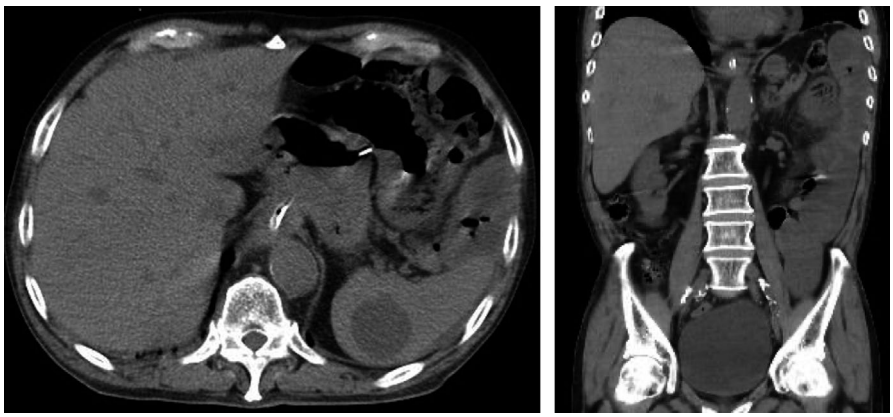

FIGURE 2 Computed tomography scan 8 h after decompression

ETHICS APPROVAL AND CONSENT TO PARTICIPATE

The patient has given his informed consent for this publication. It is exemption from ethical approval because it is an observation report after the current care.

DATA AVAILABILITY STATEMENT

All data generated or analyzed during this study are included in this published article.

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