

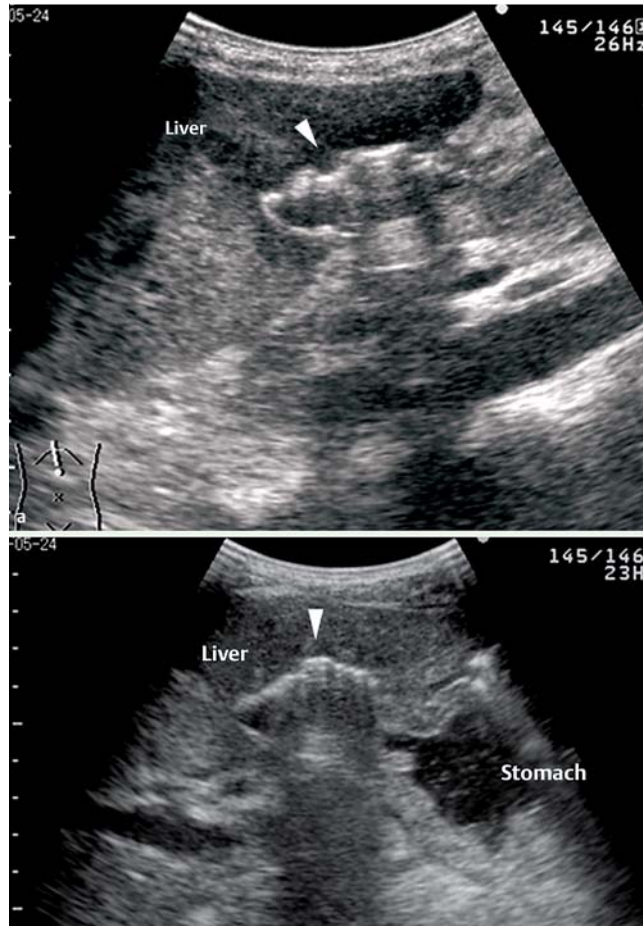
## Hepatic penetration by stomal ulcer: rare complication of a peptic ulcer

A 57-year-old man, who had undergone a Billroth I partial gastrectomy for a duodenal ulcer 1 year previously, was hospitalized for continual epigastric pain over the past 1 month. Laboratory testing revealed anemia (hemoglobin 9.4 g/dL; normal range 13.5–16.9) and an elevated C-reactive protein level (2.22 mg/dL; normal <0.02). Liver function tests and the serum gastrin level were within normal limits. Abdominal ultrasound revealed fluid and air bubbles in the liver (● Fig. 1 a), moving between the liver and stomach through a fistula (● Fig. 1 b). Computed tomography (CT) verified the ultrasound findings (● Fig. 2). Endoscopy revealed a large ulcer in the duodenum near the anastomosis (● Fig. 3). An endoscopic biopsy of the ulcer was negative for malignancy. The patient was diagnosed as having a stomal ulcer that had penetrated the liver, and he was subsequently treated with an H2 blocker and intravenous antibiotics. The ulcer healed after 1 month of treatment (● Fig. 4). After discharge, the patient continued to take proton pump inhibitors (PPIs), and there has been no recurrence of the ulcer during the 7-year follow-up period.

The most common site of penetration by duodenal ulcers is the pancreas (52.6%), followed by the biliary tract (18.4%), gastrohepatic omentum (10.7%), liver (6.2%), and colon (1.5%) [1]. Most cases of hepatic penetration have been diagnosed intraoperatively and/or by endoscopic biopsy [1,2]. However, in our patient, the ultrasound clearly demonstrated detailed findings sufficient for diagnosis. Most cases of ulcers penetrating the liver have been treated by surgical procedures [1,2]. In addition to the present report, there have been two other recent case reports that have demonstrated the effectiveness of medical treatments such as H2 blockers and PPIs [3,4].

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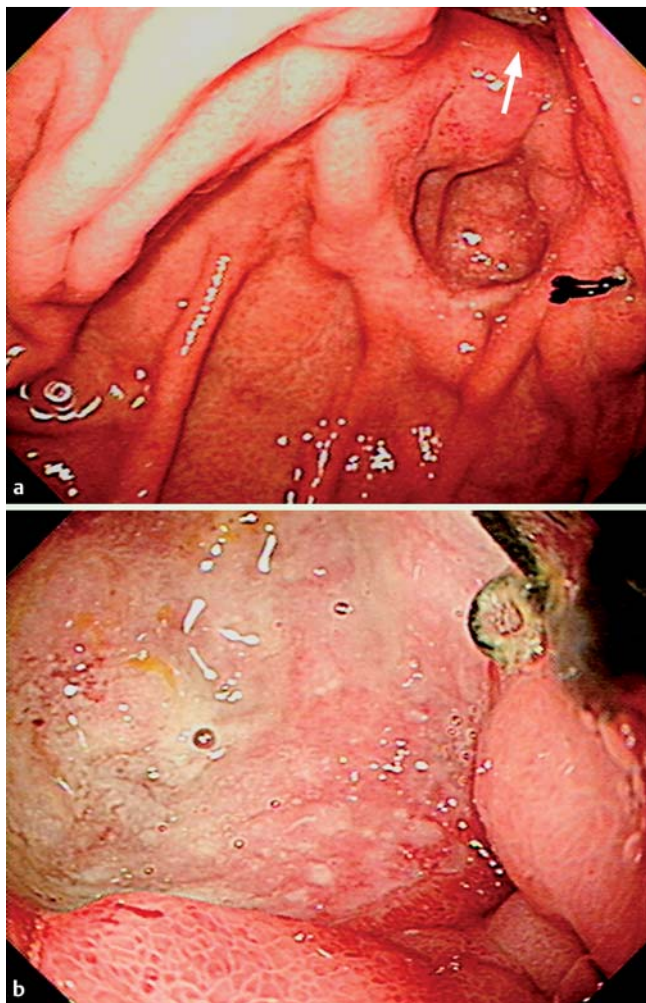
**Competing interests:** None



**Fig. 1** Abdominal ultrasound findings in a 57-year-old man with a history of Billroth I partial gastrectomy and hospitalized for continual epigastric pain. **a** Sagittal section of the upper abdomen showing an echo-free space with air bubbles (arrowhead) in the liver. **b** Coronal section of the upper abdomen showing fluid with air bubbles (arrowhead) moving between the liver and stomach through a fistula.



**Fig. 2** Contrast-enhanced computed tomography (CT) showing fluid with air in the liver and a fistula between the hepatic lesion and the stomach.



**Fig. 3** Endoscopic findings. **a** An ulcer (arrow) is seen in the duodenum near the suture. **b** Close-up view of the large, deep ulcer.



**Fig. 4** Repeat endoscopy on day 35 showed the healed ulcer.

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### References

- 1 Haubrich WD. Complications of peptic ulcer disease. In: Bockus HE, ed. *Gastroenterology*. Volume 1, 3rd edn. Philadelphia: WB Saunders; 1976: 720–762
- 2 Somi MH, Tarzamni MK, Farhang S et al. Liver mass due to penetration of a silent duodenal ulcer. *Arch Iran Med* 2007; 10: 242–245
- 3 Park RH, Russell RI. Liver penetration by peptic ulcer. *Am J Gastroenterol* 1988; 83: 793–795
- 4 Kayacetin E, Kayacetin S. Gastric ulcer penetrating to liver diagnosed by endoscopic biopsy. *World J Gastroenterol* 2004; 10: 1838–1840

### Bibliography

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