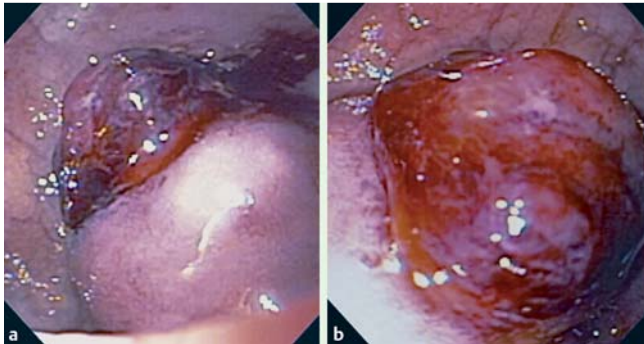
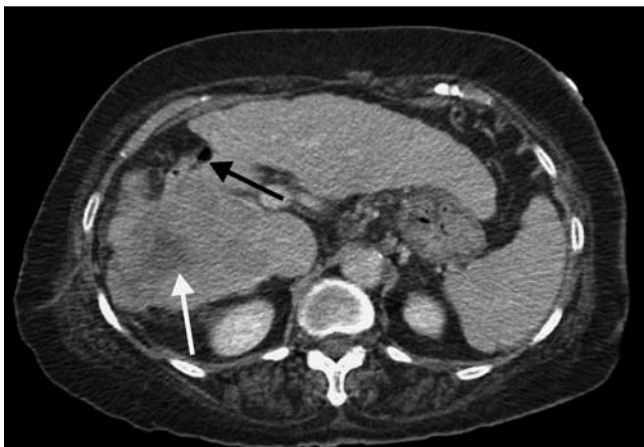


## Infiltrating hepatocellular carcinoma into the duodenum presenting with upper gastrointestinal bleeding



**Fig. 1 a, b** Endoscopic view of an infiltrating mass into the duodenal bulb with active oozing.



**Fig. 2** Abdominal computed tomography (CT) scan showing a large (8.5 × 6.9 cm), inferior right hepatic lobe mass (white arrow) with direct invasion into the proximal duodenum (black arrow).

Hepatocellular carcinoma (HCC) is a primary tumor of the liver that usually develops in the setting of chronic liver disease and cirrhosis. Extrahepatic spread is found in 10%–20% of patients at the time of diagnosis and is more common in tumors over 5 cm in diameter [1]. Direct invasion of the gastrointestinal tract is rare and reported to occur in 0.5%–2% of cases [2]. We present a case of HCC directly invading the duodenal bulb with resultant upper gastrointestinal bleeding.

A 78-year-old woman with a history of chronic hepatitis C presented with 2 days duration of melena and a hemoglobin of 6.8 g/dL. Two years prior she underwent intraoperative radiofrequency ablation to three HCC lesions located in the left lateral hepatic lobe, dome of the liver, and the inferior right hepatic lobe. Interval follow-up imaging revealed residual tumor in the dome of the liver and the inferior right hepatic lobe, which had been treated with sorafenib.

Endoscopic findings revealed an infiltrating mass into the duodenal bulb with active oozing (● Fig. 1).

Epinephrine (1:10000) was injected around the protruding mass with satisfactory control of bleeding. Computed tomography of the abdomen (● Fig. 2) revealed a cirrhotic appearing liver with a large, 8.5 × 6.9 cm, inferior right hepatic lobe mass with direct invasion into the proximal duodenum.

HCC has been described with direct invasion into the stomach and colon with resultant gastrointestinal bleeding [3, 4]. Direct invasion into the duodenum has been rarely reported [5], and upper gastrointestinal bleeding and gastric outlet obstruction is a rare presentation when duodenal invasion occurs [6]. Treatment with external beam radiation therapy has been described when gastrointestinal bleeding refractory to standard endoscopic hemostasis techniques occurs [7]. Surgical resection with a pancreas-sparing duo-

denectomy or an extended left lobectomy with partial gastroduodenectomy has been successful [8, 9]. Despite the above measures, prognosis remains poor.

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