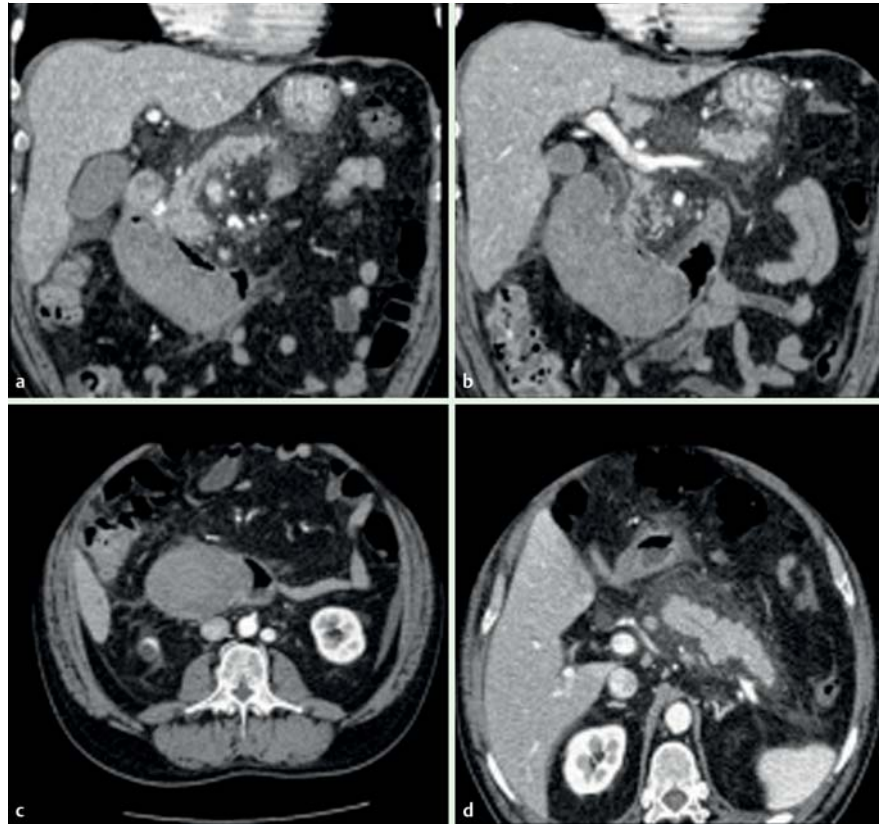


## Acute pancreatitis associated with a nontraumatic, intramural duodenal hematoma

Intramural duodenal hematoma is a rare disease, first described in 1838 by Mac-Lauchlan. More than 70% of intramural duodenal hematomas are secondary to blunt abdominal trauma [1]. Nontraumatic intramural duodenal hematoma was first reported by Sutherland in 1904 and is associated with anticoagulation (most commonly) or antiplatelet therapy, coagulation disorders, and endoscopic hemostasis. An association between intramural duodenal hematoma and acute pancreatitis has been rarely reported [2].

A 64-year-old man presented with a 1-day history of abdominal pain and postprandial vomiting. He had had an acute myocardial infarction 6 months ago, and had been treated with a coronary drug-eluting stent and dual antiplatelet therapy (aspirin and clopidogrel). His alcohol intake was 30 g/day. There was no history of pancreatitis, abdominal trauma, or hypertriglyceridemia. Laboratory investigations revealed hemoglobin 15.4 g/dL, international normalized ratio (INR) 1.17, amylase 724 IU/L, and lipase 1095 IU/L. Abdominal ultrasound was unremarkable (pancreas partially observed). He was admitted with the diagnosis of acute pancreatitis of unknown etiology (Ranson's criteria 1). At 24 hours after admission, the hemoglobin level dropped by 3.8 g/dL, and at 48 hours three Ranson's criteria were present. Contrast-enhanced abdominal computed tomography (CT) showed diffuse enlargement of the pancreas and an intramural duodenal hematoma in the duodenum (► Fig. 1). Upper gastrointestinal endoscopy revealed reddish bulging in the duodenum (► Fig. 2). The planned conservative treatment was successful and the patient was discharged 14 days later. A follow-up CT 1 month later showed significant reduction in the size of the hematoma (► Fig. 3).

Nontraumatic intramural duodenal hematoma is uncommon and occurs mainly in patients with risk factors for bleeding. The CT findings of mural hyperdensity within an area of circumferential thickening of the small bowel, causing luminal narrowing, are characteristic of intramural duodenal hematoma [3]. Acute pan-



**Fig. 1** a–c Contrast-enhanced abdominal CT in a 64-year-old man with a 1-day history of abdominal pain and postprandial vomiting. There is a hyperdense expansive lesion (10×6 cm), without contrast enhancement in the arterial phase, in the second and third portions of the duodenum, with mass effect on the duodenal lumen and pancreatic tissue, suggestive of intramural duodenal hematoma. **d** Diffuse enlargement of the pancreas and increased density of peripancreatic fat tissue. The gastroduodenal artery and pancreatic arterial arcade showed no irregularities.

creatitis secondary to intramural duodenal hematoma is probably due to compression of the pancreas and/or obstruction of the duodenal papilla. Patients with nonextensive intramural hematomas generally have a good outcome with conservative treatment [3,4].

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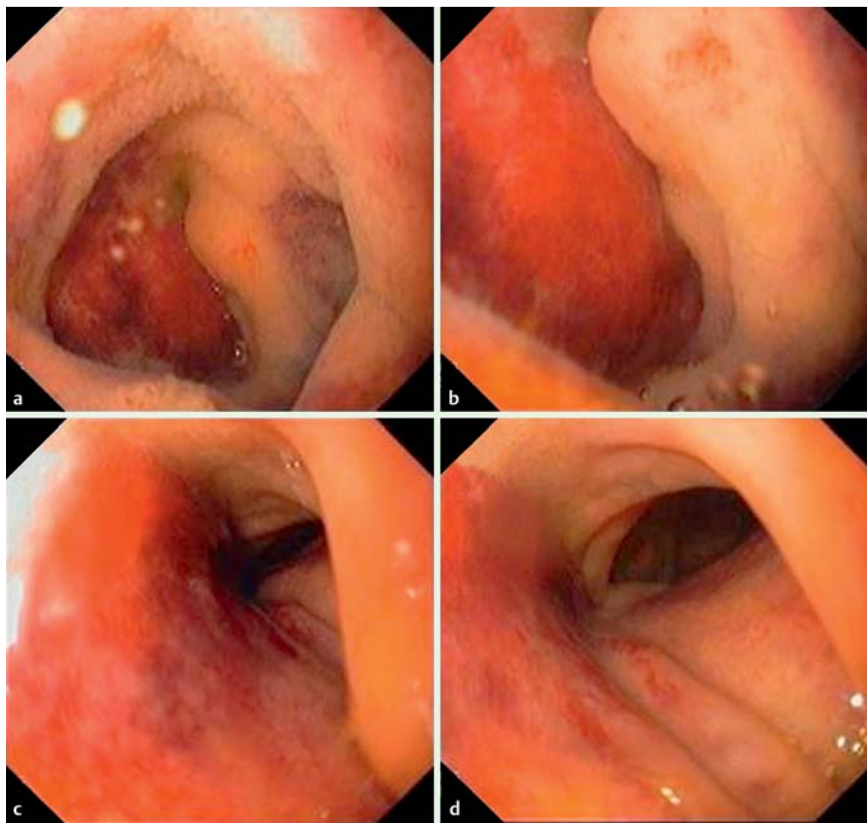
**Competing interests:** None

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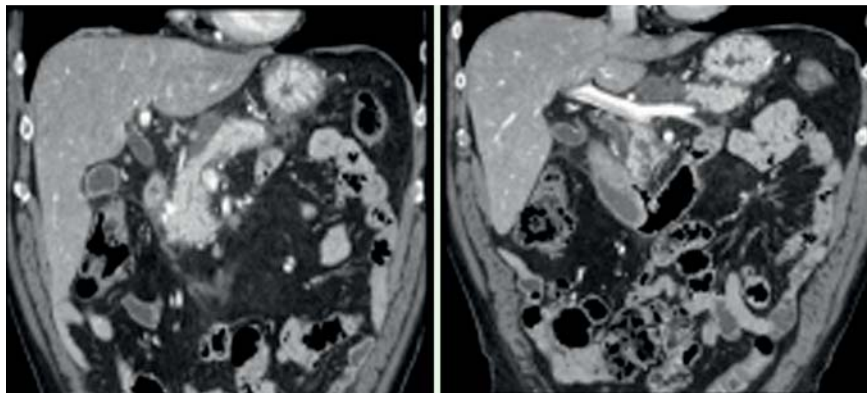
**Fig. 2** Upper gastrointestinal endoscopy showing soft, reddish bulging of the duodenum. **a, b** The duodenal bulb. **c, d** The second and third parts of the duodenum.

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**Fig. 3** Follow-up computed tomography (CT) (1 month after discharge) showing reduction in the size of the hematoma (2 × 1 cm).