Pseudoaneurysm eroding into the duodenal bulb: an extremely rare case and treatment modality

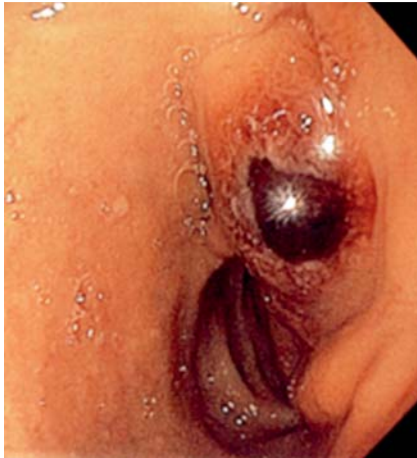

Fig. 1 Bulging lesion in the duodenal bulb region discovered on endoscopy.

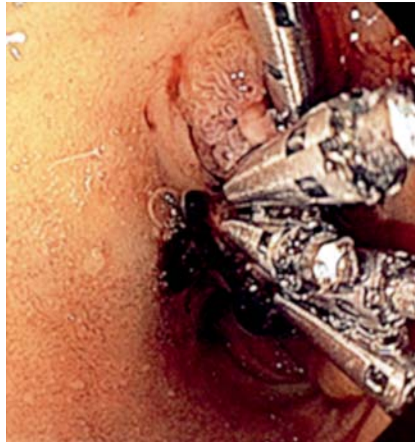

Fig. 2 Duodenal bulb lesion after endoscopic treatment with epinephrine and endoclips.

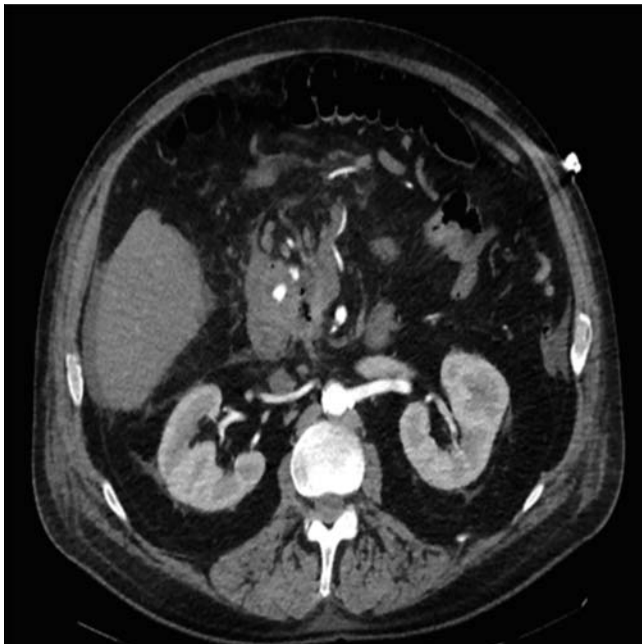

Fig. 3 Radiographic evidence of pseudoaneurysm near the duodenal bulb.

Pseudoaneurysm formation in the vessels near the pancreas is a rare complication in patients with chronic pancreatitis [1]. Treatment of bleeding pseudoaneurysms is difficult and rarely endoscopic. We present the case of a patient with chronic pancreatitis and a pseudoaneurysm eroding through the wall of the duodenal bulb, who underwent emergency endoscopic therapy for initial stabilization.

A 54-year-old man with chronic pancreatitis from alcohol was admitted to the hospital with an acute episode of pancreatitis. On hospital day 9, the patient experienced ~300 mL of hematemesis. His vitals signs were normal except for tachycardia of 122 beats per minute. Physical examination revealed epigastric tenderness but was otherwise normal. His hemoglobin was 7.3 g/dL (baseline 9.9 g/dL). He underwent endoscopy, which showed an actively bleeding, bulging 1.5-cm red lesion with sharp borders in the duodenal bulb (Fig. 1). Epinephrine (10 mL of 1 : 10 000) was injected in a four-quadrant fashion around the lesion, and five Resolution endoclips (Boston Scientific Corp., Natick, Massachusetts, USA) were placed in sequential fashion to close the lesion, resulting in successful hemostasis (Fig. 2).

Later that day, computed tomography (CT) of the abdomen was performed and showed a 1.2-cm aneurysm formation adjacent to the duodenum (Fig. 3). Three days later, the patient underwent CT angiography, which showed endoclips on the medial aspect of the duodenal wall and contrast pooling in the pancreatic head region near the superior pancreaticoduodenal artery, with a focus within the duodenal wall, consistent with pseudoaneurysm with extravasation. He underwent angiography, which demonstrated a bleeding bilobulated pseudoaneurysm arising from the gastroduodenal artery. The pseudoaneurysm was successfully coiled. After 19 days of hospitalization, the patient was discharged with a stable hemoglobin level.

Although bleeding pseudoaneurysms are a rare complication of chronic pancreatitis, they should be considered in any patient with chronic pancreatitis who presents with upper gastrointestinal bleeding [1 – 3]. Radiographic intervention with coiling of the vessel is the predominate treatment, with endoscopic therapy of such lesions being extremely rare and potentially dangerous without the availability of interventional radiology [4, 5]. In this unique case, a rare duodenal bulb pseudoaneurysm was identified on endoscopy. This pseudoaneurysm was treated endoscopically for initial stabilization (with an interventional radiologist readily available), and subsequently underwent coiling by interventional radiology.

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