Triad of post-ERCP pancreatitis, and gastric outlet, and biliary obstruction: are we dealing with intramural duodenal hematoma?

A 20-year-old woman who was being followed up for previous laparoscopic cholecystectomy for symptomatic cholelithiasis underwent endoscopic retrograde cholangiopancreatography (ERCP)-sphincterotomy and extraction of a retained common bile duct (CBD) stone (measuring 6 mm). Following ERCP, she developed progressive increase in liver function values, mild abdominal pain, and persistent bilious vomiting. She also had mild elevation in

pancreatic enzyme levels. Abdominal radiograph ruled out bowel perforation. In view of persistent bilious vomiting, she underwent gastroscopy, which revealed a distended stomach with bilious fluid and a large intraluminal bulge that almost occluded the lumen in the second part of the duodenum. There was bluish discoloration of the perilesional duodenal mucosa (● Fig. 1 a, b). We kept in mind the possibility of peripancreatic fluid collection

causing extrinsic duodenal compression, and a radial endosonography (EUS) was performed. The EUS showed a circumscribed lesion (6×4 cm) in the duodenal wall. It had mixed echogenicity with multiple hyperechoic areas and no Doppler uptake, raising the possibility of an organized duodenal wall hematoma. The CBD measured 10 mm (proximal part) and was partly compressed distally by the lesion. The pancreatic head was mildly bulky (● Fig. 1 c, d). Abdominal magnetic resonance imaging confirmed the EUS findings (● Fig. 2).

The patient was managed conservatively. Her symptoms gradually improved over 4–5 days, and she was subsequently discharged.

Fig. 1 Endoscopic and endosonographic views of the duodenum. **a** Intraluminal bulge almost occluding the duodenal lumen. **b** Duodenal mucosa in the perilesional area showing a bluish discoloration. **c** Radial endosonographic appearance showing 6-cm heteroechoic lesion (white arrow) confined to the duodenal wall. **d** Common bile duct (CBD) compressed by the intramural lesion in the duodenum.

Fig. 2 Magnetic resonance imaging showed findings consistent with large, intramural, duodenal wall hematoma after endoscopic retrograde cholangiopancreatography. **a, c** Coronal HASTE and T2-weighted images, showing an expansile and heterogeneous mass-like lesion in the second part of the duodenum. **b, d** Coronal HASTE and axial T2-weighted images, showing thin hyperintense periphery of mass-like lesion.

This was a rare case of post-ERCP intramural duodenal hematoma (IDH). IDH occurs mostly after trauma and rarely after endoscopy and ERCP [1,2]. IDH has been very rarely associated with nontraumatic acute pancreatitis [3]. IDH generally resolves with conservative management, occasionally requiring percutaneous, endoscopic or surgical drainage [2]. It has been reported that the occurrence of traumatic pancreatitis, and gastric outlet and biliary obstruction with a mass lesion on radiological imaging could be indicative of retroduodenal hematoma [4]. We suggest that after ERCP, the triad of acute pancreatitis, and biliary and gastric outlet obstruction should raise the possibility of duodenal hematoma.

Endoscopy_UCTN_Code_CPL_1AK_2AC

Competing interests: None

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DOI <http://dx.doi.org/10.1055/s-0034-1377500>
Endoscopy 2014; 46: E443–E444
 © Georg Thieme Verlag KG
 Stuttgart · New York
 ISSN 0013-726X

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