

## Secondary aortoduodenal fistula in the duodenal bulb: role of side-viewing endoscopy

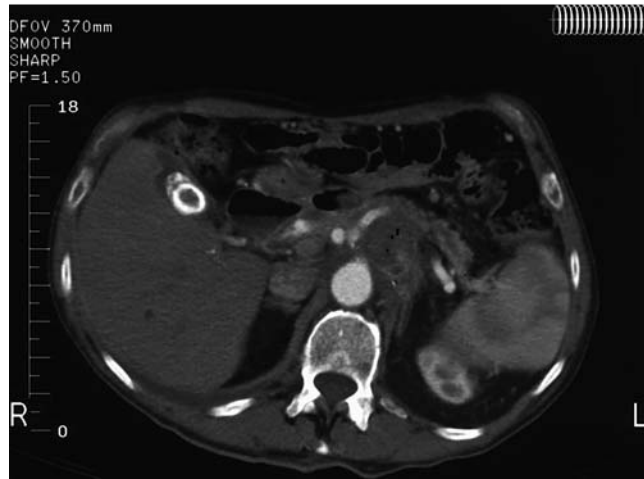
Secondary aortoduodenal fistula is an uncommon but life-threatening complication of aortic reconstructive surgery [1]. Here we report on the diagnosis of an aortoduodenal fistula using an atypical endoscopic method.

A 82-year-old man was admitted to our hospital with melena. He had undergone implantation of a prosthetic graft for a celiac trunk aneurysm 3 years ago. A contrast-enhanced computed tomography scan was nondiagnostic (▶ Fig. 1).

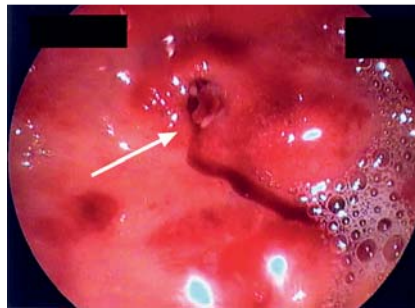
Therefore, we carried out upper gastrointestinal endoscopy using an operating gastroscope (ES-250WE5, Fujinon Inc., Saitama, Japan), which did not reveal any potentially bleeding lesions, however, a small amount of red blood was found over the pylorus. The endoscopic examination was continued into the third and the fourth portions of the duodenum, where a smaller amount of red blood was visualized in the duodenal bulb, but without any sign of a bleeding source. Substitution of the operating gastroscope with a side-viewing duodenoscope (ED-200XU, Fujinon Inc., Saitama, Japan) allowed identification of 1-mm diameter, deep ulcer in the posterior wall of the duodenal bulb, with oozing bleeding (▶ Fig. 2).

The patient was then promptly referred to a vascular surgeon, and during surgery a fistula was found between the graft and duodenal bulb. The graft was removed and the small defect in the posterior wall of the bulb closed.

Aortoduodenal fistulas are the most common aortoenteric fistulas (80%), and the third and fourth duodenal segments are the most frequently involved sites. However, communication with other parts of the gut, such as the small bowel, the colon, and the rectum has also been reported [2,3]. The present case is unusual for an aortoduodenal fistula because of



**Fig. 1** Computed tomogram showing possible aortoduodenal fistula in an elderly man with melena.



**Fig. 2** Side-view duodenoscopy demonstrating active bleeding (arrow) from an ulcer in the posterior duodenal bulb wall.

the atypical surgical history (previous aortoceliac bypass for an aneurysm of the celiac trunk). To the best of our knowledge, this is the first report of an aortoduodenal fistula involving the duodenal bulb; in this rare condition, use of side-viewing endoscopy aided direct visualization of the site of bleeding, thus permitting early diagnosis.

Endoscopy\_UCTN\_Code\_CCL\_1AB\_2AZ\_3AD

**Competing interests:** None

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DOI 10.1055/s-0030-1256683

Endoscopy 2012; 44: E98

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