A rare case of pedunculated ampulloma: EUS view and resection

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A 66-year-old man was admitted to our institute for persistent abdominal pain and hyperlipasemia. His comorbidities included arterial hypertension, mechanical aortic valve under anticoagulant therapy (warfarin), and diabetes type II. His history also included pulmonary lobectomy for pulmonary cancer more than 10 years ago. During further investigation, a contrast-enhanced CT scan showed dilation of the common bile duct (CBD) and main pancreatic duct (MPD) associated with the presence of an enhancing intraluminal solid lesion (26 mm in diameter) in the second duodenum (Fig. 1). Accordingly, gastroscopy showed a large duodenal pedunculated polyp with a long stalk, approximately originating from the ampullary area (Fig. 2). Since the major papilla was not recognizable, we supposed the biliary and pancreatic duct openings were located at the polyp head, and biopsies revealed adenoma with low grade dysplasia. Neoplastic markers (CA 19.9 and carcinoembryonic antigen) were normal. Therefore, EUS showed a mild dilation of CBD (10 mm) and MPD (5 mm), both extending all the way through the stalk of the lesion to the polyp head (Fig. 3). The muscular layer of the wall was not involved, so an ERCP was planned: hot snare en-bloc endoscopic resection following epinephrine injection (1:10000) of the base of the stalk was performed. CBD and MPD openings were clearly visible at the base of the resection so we proceeded with cannulation and biliary and pancreatic stenting (Video 1, available online at www.videogie.org; Fig. 4). Post-ERCP pancreatitis (PEP) is a well-known adverse event of this procedure, so pancreatic stenting is fundamental.[1] Following resection, an intraprocedural mild oozing bleeding from the edge of resection area was successfully treated with monopolar coagulating forceps (Coagasper; Olympus, Tokyo, Japan) and prophylactic application of a hemostatic matrix (Purastat; 3D-Matrix Europe SAS, Caluire et Cuire, France). Furthermore, other measures like rectal nonsteroidal anti-inflammatory drugs and intravenous fluids are effective to

Figure 1. CT scan highlighting the presence of an enhancing intraluminal solid lesion (*white arrow*, 26 mm in diameter) in the second part of the duodenum.

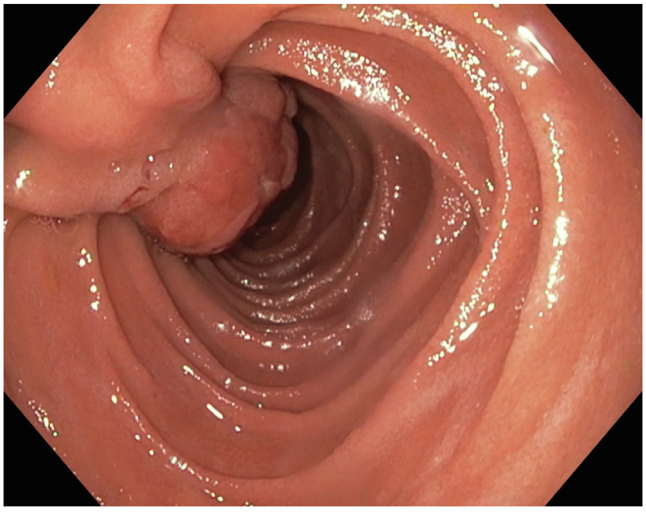

Figure 2. Endoscopic view of a large pedunculated polyp with a long stalk in the second part of the duodenum, approximately originating from the ampullary area.

Abbreviations: CBD, common bile duct; MPD, main pancreatic duct; PEP, post-ERCP pancreatitis.

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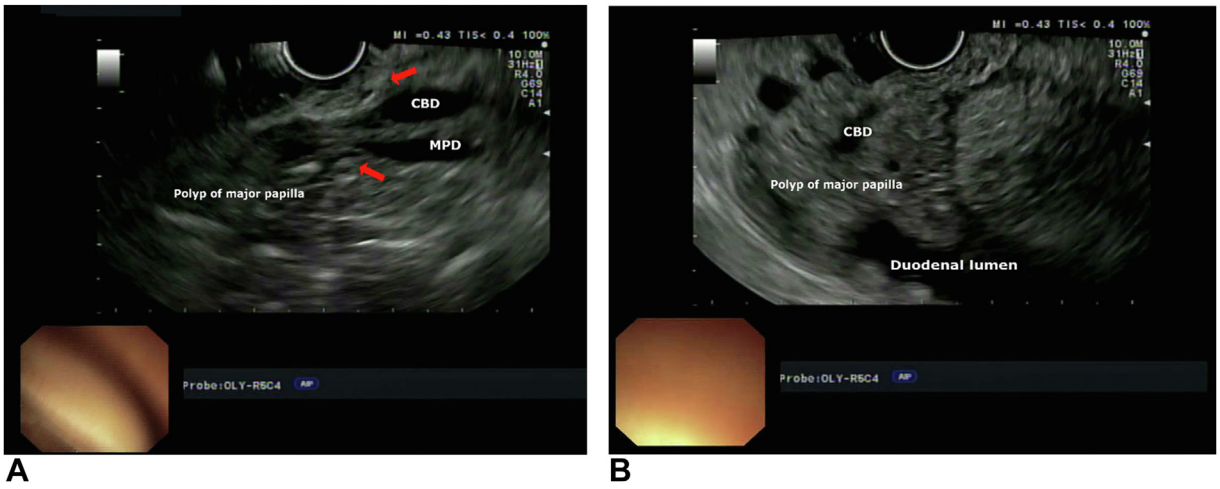

Figure 3. EUS showing the following: **A,** common bile duct and main pancreatic duct, both extending all the way through the stalk of the lesion to the polyp head; **B,** the whole head of the lesion is intraluminal and does not involve muscular layers.

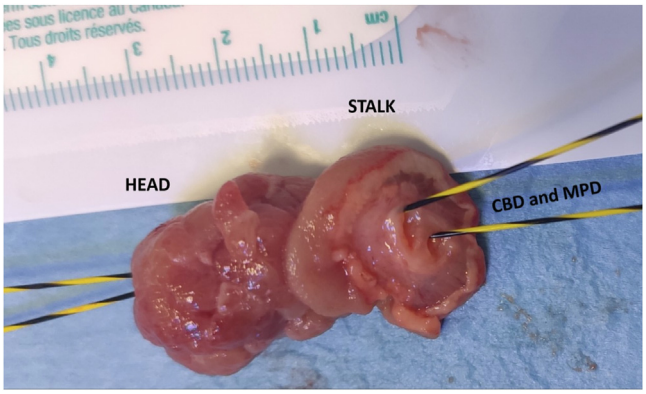

Figure 4. Postresection view of the specimen clearly showing the common bile duct and main pancreatic duct in the stalk of the lesion (guidewires were placed postresection to highlight both ducts).

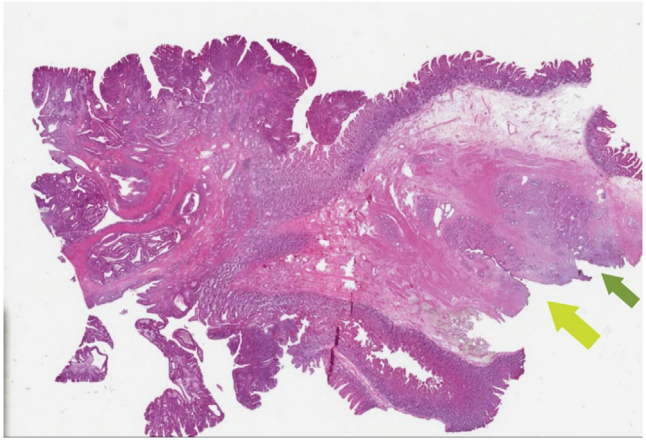

Figure 5. Histological evaluation after hematoxylin and eosin staining of the resected polyp: ampullary tubulo-villous adenoma (intestinal type) with high-grade dysplasia. The *arrows* show the biliary (*green*) and pancreatic (*yellow*) ducts (H&E, orig. mag. ×0.5).

prevent PEP, so we also administered 100 mg of rectal indomethacin prior to ERCP and hydration with lactated Ringer's solution at 3 mL/kg/h for 8 hours after ERCP. The patient's postprocedural course was uneventful, and the patient was discharged 2 days later. Final histology showed an R0 resection of a tubulo-villous adenoma (intestinal type) with high-grade dysplasia (Fig. 5). At the 1-year follow-up, a duodenoscopy was negative for recurrence and the patient did not have any further papillectomy-related symptoms and/or signs.

Although our treatment was minimally invasive, it was radical and safe. Few similar cases of ampullary or periampullary polyps have been described in the literature,[2-6] and only 2 of them have been endoscopically resected.[2,3] Actually, Miyazaki et al[5] resected a pedunculated duodenal polyp through a rendezvous technique called EASLD (endoscopy-assisted laparoscopic submucosal dissection), but unlike our lesion, the polyp did not involve the major papilla. However, Okamoto et al[3] in 2002 endoscopically resected a 30-mm polypoid lesion of duodenal wall adjacent to major papilla (without involving it), while Shiba et al[2] in 2010 described a case of pedunculated ampulloma involving the biliary and pancreatic duct similar to ours, but treated by surgery. In conclusion, this is an extremely rare case of well-managed endoscopic resection of pedunculated ampulloma involving biliary and pancreatic duct.

DISCLOSURE

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