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Duodenal angiolipoma: a rare tumor causing recurrent upper gastrointestinal bleeding

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Statement of ethics: the patient has given written informed consent for publication of this article (including the publication of images).

Author contributions: Francisco Vara-Luiz and Ivo Mendes wrote the manuscript; Carla Oliveira performed the endoscopic evaluation; Pedro Pinto-Marques performed the endoscopic ultrasound evaluation; Gonçalo Nunes and Pedro Currais performed endoscopic resection; Catrine Dahlstedt-Ferreira performed pathology evaluation; Gonçalo Nunes, Pedro Pinto-Marques and Jorge Fonseca critically reviewed the manuscript. All authors approved the final version of this paper.

Data availability statement: the complete data of this study are not publicly available due to the patient's privacy but are available from the corresponding author upon reasonable request.

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Dear Editor,

A Caucasian 67-year-old female was admitted due to upper gastrointestinal bleeding, presenting melena and hypotension. Past medical history was relevant for a previous self-limited episode of bleeding that occurred one year previously. The upper gastrointestinal endoscopy showed a 5 cm pediculated polypoid lesion with a smooth surface at the third portion of the duodenum (Fig. 1A). Endoscopic ultrasound (EUS) showed a 6 cm subepithelial hyperechoid homogenous lesion arising from the submucosa (Fig. 1B). Endoscopic excision was performed using a standard polypectomy technique after endoloop placement at the bottom of the lesion, to avoid delayed bleeding and transmural damage (Fig. 1C and D), followed by clip placement to prevent late perforation. Histopathology revealed mature adipocyte proliferation and proliferative blood vessels in the submucosa, without cytological atypia, compatible with duodenal angiolipoma (Fig. 1E). The patient was discharged with no further bleeding episodes during follow-up.

Discussion

Angiolipoma, a rare variant of lipoma, is a benign soft tissue tumor found in the subcutaneous tissue. Its location in the gastrointestinal tract is unusual and occurs mostly in the stomach, ileum and colon (1). Duodenal angiolipoma is even rarer, with only five published case reports. Symptoms are non-specific, with vague abdominal complaints precluding an early diagnosis. The most common clinical presentation is epigastric fulness that increases gradually as time goes by. On rare occasions, obstruction, intussusception, painless jaundice or even pancreatitis may develop (2). Due to stretching of the mucosa, with necrosis of the epithelial layers, it may result in gastrointestinal bleeding. Besides radiologic evaluation, such as computed tomography or magnetic resonance imaging, EUS is effective to provide information about the original layer, echogenicity and true dimensions (3). On upper endoscopy, the appearance of a pedunculated mass of fat, a lesion stretching the submucosa or “the naked fat sign” are suggestive of the diagnosis, but it is generally insufficient, as only

histopathology can confirm the definitive diagnosis (4). Although symptomatic duodenal angiolipoma were traditionally treated with surgery due to their submucosal location, broad base and large diameter endoscopic removal can be safely performed, as described by Ni et al. (5), although with a risk of recurrence. The authors highlight duodenal angiolipoma as a rare adipocytic tumor, potentially causing upper gastrointestinal bleeding, which was successfully treated with endoscopic excision.

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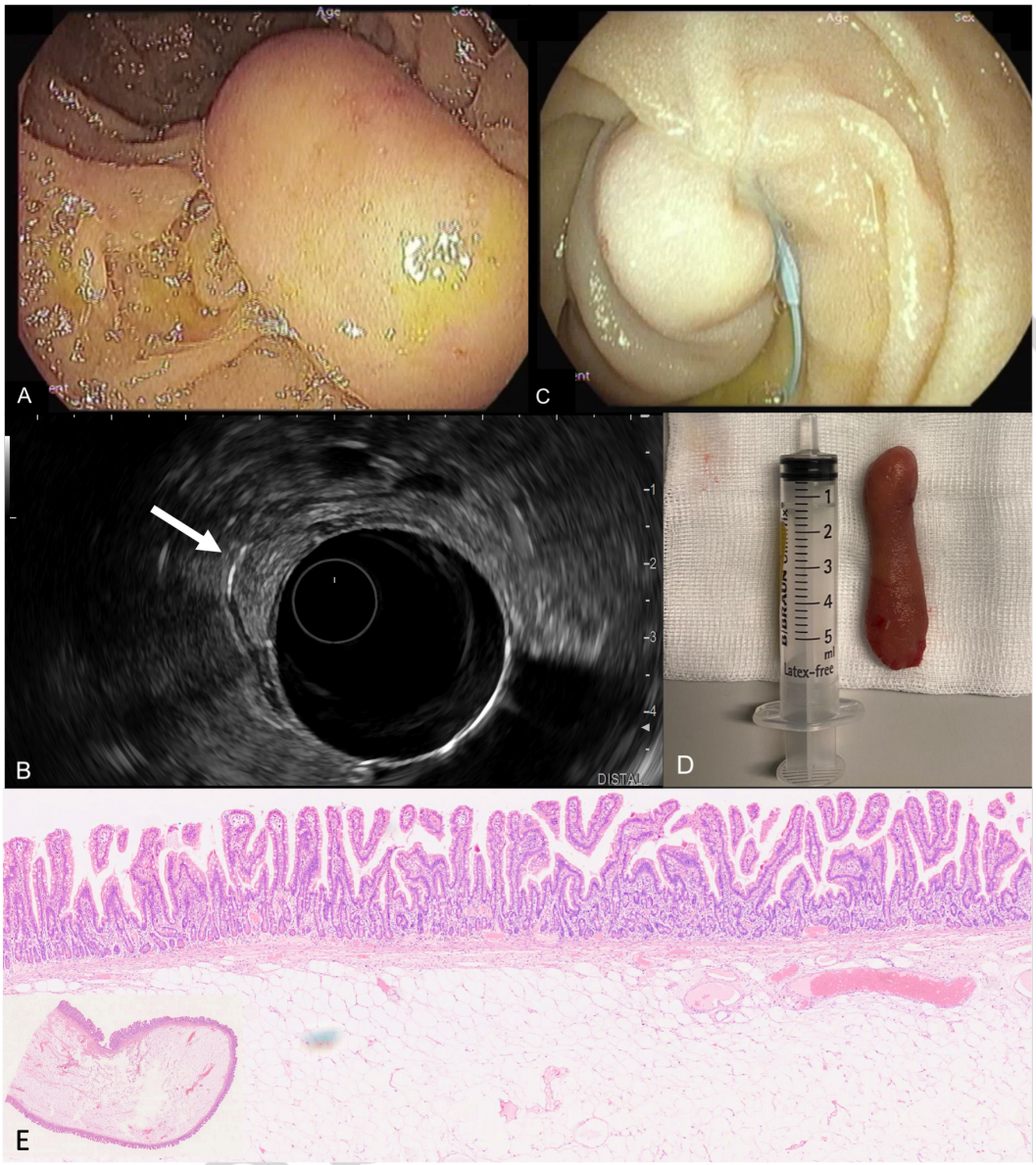

Fig. 1. A. Pediculated polypoid lesion in the third portion of the duodenum. B. Subepithelial hyperechoid homogenous lesion in endoscopic ultrasound (EUS) evaluation with origin in the third layer. C. Endoloop placement at the bottom of the lesion to avoid delayed bleeding and transmural damage. D. The resected specimen. E. Histopathology evaluation showing adipocyte proliferation and proliferative blood vessels in the submucosa.