

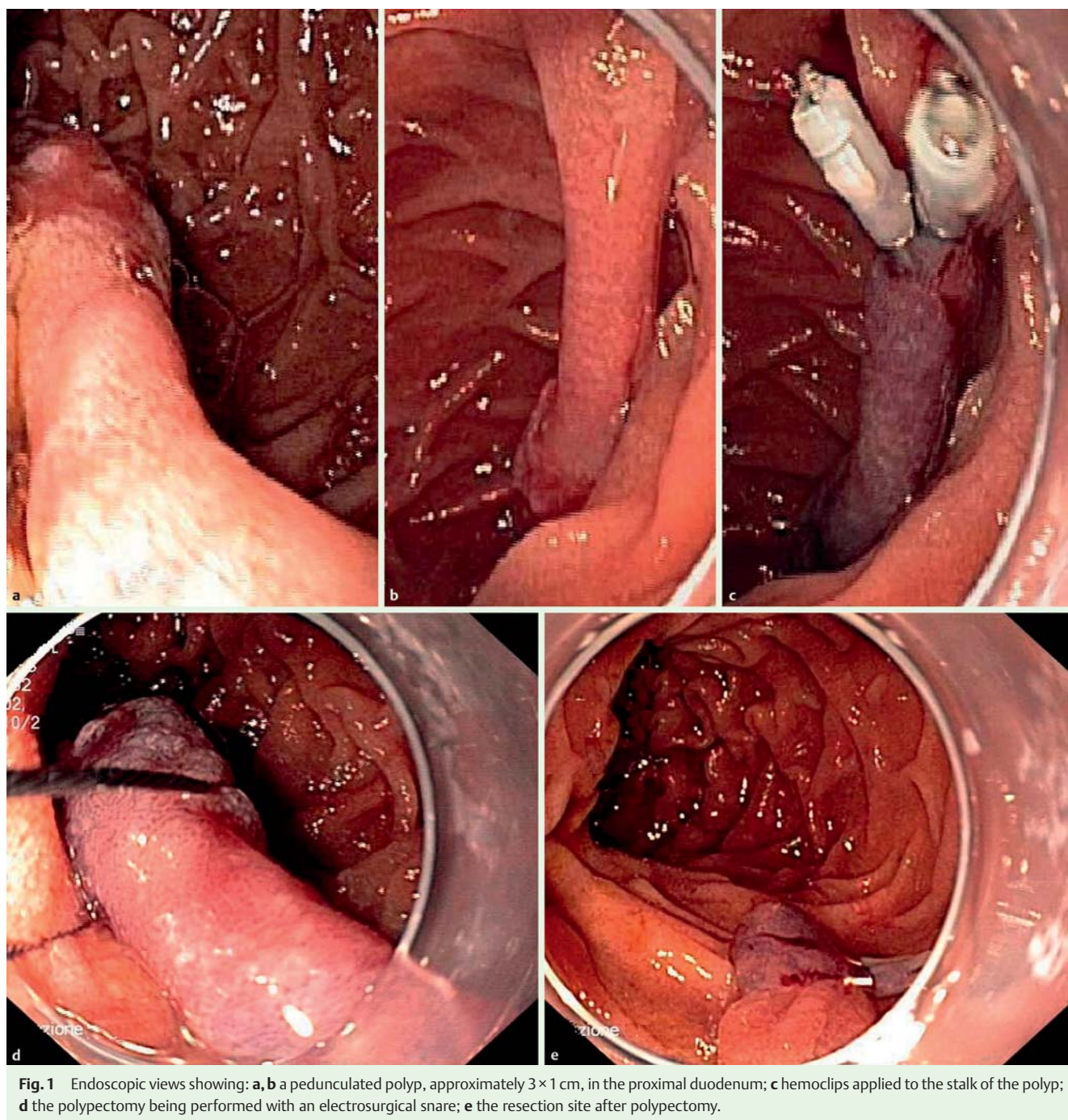
## An unusual duodenal polyp: Brunner's gland hyperplasia

A 52-year-old man with a 5-day history of black stools (melena) was referred to our digestive endoscopy unit for upper gastrointestinal endoscopy. The patient was not taking aspirin or nonsteroidal anti-inflammatory drugs (NSAIDs) and he had never smoked cigarettes. He did however have non-insulin dependent diabetes

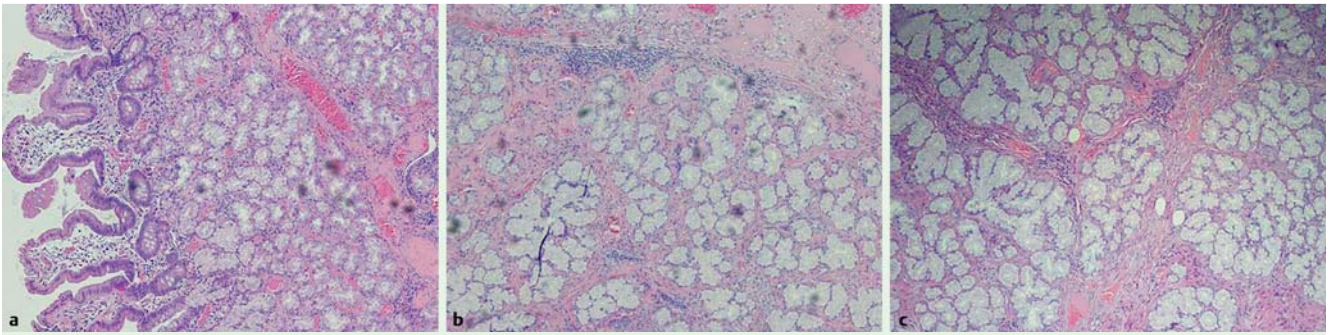
and hypertension. On admission, the results of blood analysis showed a normochromic, normocytic anemia with a hemoglobin (Hb) level of 9.3 g/dL, mean cell volume (MCV) of 89.7 fL, and mean cell hemoglobin (MCH) of 30.5 pg. Gastroscopy revealed a pedunculated polyp, approximately 3 × 1 cm, in the prox-

imal duodenum (● Fig. 1 a, b). The polyp was smooth, with small areas of erosions and some blood spots, but no evidence of active bleeding. The pit pattern was II according to the Kudo classification.

The polyp was completely removed endoscopically using a large-channel gastroscop (GIF-1TQ160; Olympus Medical Systems Corporation, Tokyo, Japan) and a hard straight cap (D-201-12704 with 13.4 mm outer diameter and 4 mm length; Olympus Medical Systems Corporation) to obtain better positional control and for a rapid polyp collection after resection. Two hemoclips (EZ-long clip HX-610-090L;



**Fig. 1** Endoscopic views showing: **a, b** a pedunculated polyp, approximately 3 × 1 cm, in the proximal duodenum; **c** hemoclips applied to the stalk of the polyp; **d** the polypectomy being performed with an electrosurgical snare; **e** the resection site after polypectomy.



**Fig. 2** Histopathology of the resected polyp (at increasing levels of magnification) showing proliferation of the Brunner's glands covered by normal duodenal mucosa.

Olympus Medical Systems Corporation) were applied to the stalk before resection to reduce the bleeding risk (● Fig. 1 c) and the lesion was resected by electrosurgical snare polypectomy (● Fig. 1 d). No bleeding or other complications occurred (● Fig. 1 e) and the polyp was retrieved using a Roth Net device (US Endoscopy, Mentor, Ohio, USA) and cap.

Histological examination of the lesion showed numerous lobules made up of Brunner's glands with normal appearance that were divided by strands of smooth muscle from the muscularis mucosae, focal aggregates of lymphocytes in the stroma, and some cystic dilatations. This was consistent with a diagnosis of Brunner's gland hyperplasia (● Fig. 2).

Brunner's gland hyperplasia is a rare and benign lesion of the duodenum, which generally has a good prognosis [1,2], although some cases of adenocarcinoma have been described. Its clinical presentation is quite variable, ranging from an asymptomatic condition to abdominal pain, intestinal obstruction, gastrointestinal bleeding, and occasionally the mimicking of a duodenal malignancy [3,4].

In symptomatic patients, surgery has been the main approach for removal in the past, but some cases of endoscopic

polypectomy have also been described, with endoscopy representing a more cost-effective and less invasive approach [5]. Our case is an example of symptomatic Brunner's gland hyperplasia successfully treated by endoscopic resection without any complications.

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**Competing interests:** None

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## Bibliography

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