Endoscopic snare polypectomy of a pedunculated adenocarcinoma of the duodenal bulb arising from a hyperplastic polyp

Primary non-ampullary adenocarcinoma of the duodenum is a rare occurrence, arising mainly from adenomatous polyps [1]. We report the first case of a pedunculated adenocarcinoma of the duodenal bulb, arising from a hyperplastic polyp, treated with endoscopic snare polypectomy.

A 76-year-old man underwent esophagogastroduodenoscopy (OGD) for asymptomatic iron-deficiency anemia. A 2-cm pedunculated polyp in the duodenal bulb (**Fig. 1**) and a small antral polyp were noted. Snare polypectomy of the pedunculated polyp was performed. Histopathology revealed a polyp sharing microscopic similarities to hyperplastic gastric polyps with hyperplastic irregular crypts, basal cystic change, and a focally retained villiform surface. Reactive eosinophilic syncytial cells with large vesicular nuclei were present along with foci of severe dysplasia and possible early invasion (**Fig. 2** and **Fig. 3**). Antral biopsies revealed *Helicobacter pylori* gastritis and a hyperplastic polyp with low grade dysplasia. A colonoscopy, staging computed tomography (CT) scan, and small-bowel barium studies were normal.

Following treatment of the patient with triple therapy and proton pump inhibitors, a repeat OGD at 3 months confirmed *H. pylori* eradication but showed high grade dysplasia of the stomach body. Subsequent OGDs at 6 months and 1 year showed downstaging to low grade dysplasia and intestinal metaplasia respectively. The patient is due for a repeat OGD in 1 year.

Incidental non-ampullary duodenal polyps are frequently encountered at endoscopy, and are mostly of an adenomatous nature, especially if ≥10 mm in size [2]. While adenomas are premalignant for duodenal adenocarcinoma [1], hyperplastic polyps in the stomach and colon have also rarely been shown to possess malignant potential [3]. Progression of duodenal hyperplastic polyps though remains uncertain [4]. This case is the first to report malignant transformation from a hyperplastic polyp occurring in the duodenum, emphasizing the importance of complete excision of such polyps. Endoscopic snare polypectomy is safe when polyps are pedunculated [5], as in our case.

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Competing interests: None

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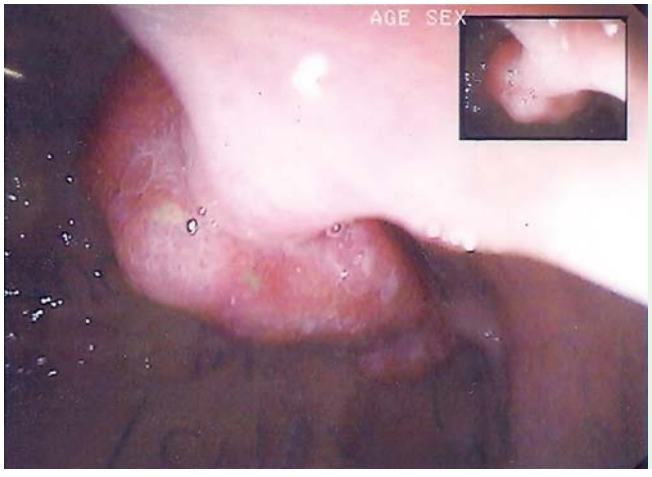

Fig. 1 Pedunculated polyp in the duodenal bulb before endoscopic snare polypectomy.

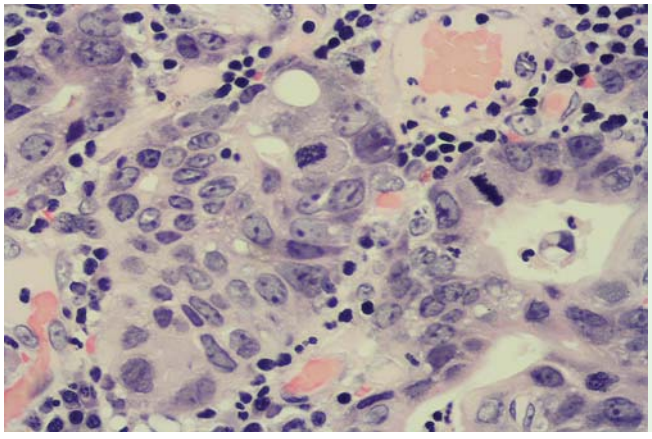

Fig. 3 Scattered abnormal mitoses (hematoxylin and eosin, ×650).

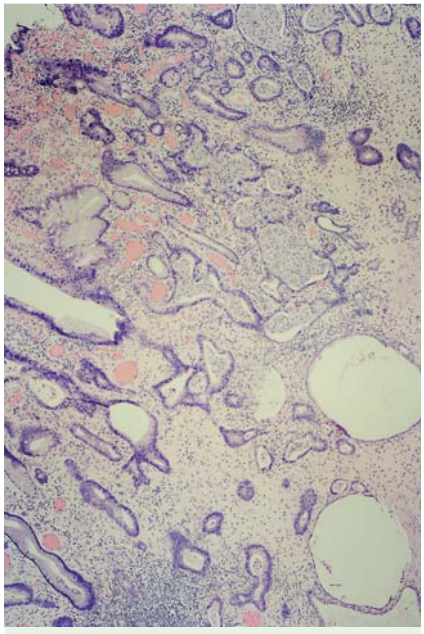

Fig. 2 Basal cystic change in crypts, and crypt epithelial atypia (hematoxylin and eosin, ×50).

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