Osseous Metaplasia in a Hyperplastic Gastric Polyp

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INTRODUCTION

- Osseous metaplasia (OM) in the gastrointestinal tract is rare and typically associated with malignant gastrointestinal tract lesions.
- Benign gastric polyps containing OM are exceptionally rare with only six other cases reported to the best of our knowledge.
- A literature review also suggests a possible association with chronic liver disease.
- We describe the case of an elderly woman with cirrhosis who was found to have a solitary gastric polyp on outpatient esophagogastroduodenoscopy (EGD).
- This was resected and histopathology noted a hyperplastic polyp containing osseous metaplasia.
- The risk of future neoplastic transformation of osseous metaplasia is unknown.

CASE DESCRIPTION

- A 71-year-old Caucasian woman with history of Type 2 diabetes mellitus and compensated cirrhosis secondary to non-alcoholic steatohepatitis, with no gastrointestinal symptoms, underwent outpatient EGD to screen for esophageal varices.
- EGD revealed mild gastric antral erosions and a 2 mm sessile polyp in the proximal gastric body (Fig 1a) with no macroscopic neoplastic features.
- The polyp was resected with cold biopsy forceps and histological exam noted an inflammatory hyperplastic polyp with multiple foci of osteoblast-lined OM (Fig 1b arrows).

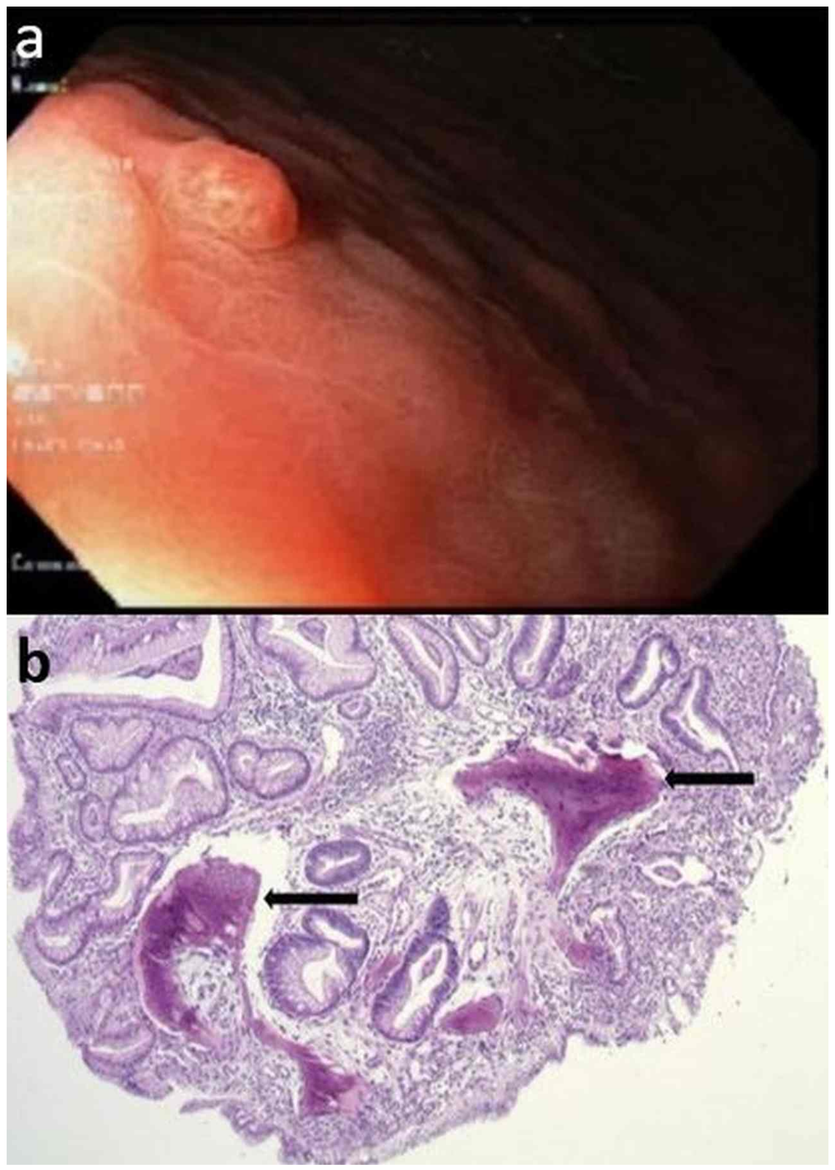

Fig 1a. Upper endoscopy image showing gastric polyp.
Fig 1b. Pathology slide showing foci of osseous metaplasia (black arrows).

- Random gastric biopsies showed mild chronic gastritis negative for Helicobacter pylori.
- The rest of EGD was unremarkable and patient discharged home in stable condition to continue routine outpatient care for her cirrhosis.

DISCUSSION

- Osseous metaplasia in benign gastric polyps is a rare observation first reported by Ohtsuki et al in 1987 and has continued to intrigue clinicians as to its exact pathogenesis or relevance.
- Pathogenesis of OM in benign lesions is suspected to involve reactive osteoblast stimulation from chronic mucosal inflammation.
- Helicobacter Pylori infection has not been associated so far in the few reported cases.
- A majority of the reported cases of OM in benign gastric polyps noted a form of chronic liver disease, including chronic viral hepatitis and cirrhosis.
- It is also unknown if OM represents a risk for future neoplastic transformation.
- Continued reporting of similar cases is expected to help elucidate any clinical relevance of OM, any comorbid associations and possibly provide guidance on the optimal management or endoscopic surveillance for affected individuals.