

Esophageal ridges: an unusual complication of oral iron therapy

Vishal Sharma, Kaushal K. Prasad, Harshal S. Mandavdhare, Surinder S. Rana

A 60-year-old female who was being treated for anemia underwent esophagogastroduodenoscopy for evaluation of recent-onset dyspepsia. Endoscopy revealed two longitudinal esophageal ridges extending from the middle to the lower esophagus (Fig. 1). Multiple biopsies taken from these ridges showed deposits of brownish granular iron pigment in the lamina propria, covered by an intact epithelium (Fig. 2A), highlighted by iron stain (Fig. 2B). The patient reported taking oral iron supplementation for iron deficiency anemia for past 6 months. The patient was advised to stop oral iron, as her hemoglobin and iron profile were now normal. Endoscopy after three months showed a significant decrease in size of these ridges (Fig. 1B). Repeat biopsies revealed an absence of any iron stores.

Endoscopic changes due to iron-induced injury may include the presence of gastrointestinal erythematous changes, erosions, subepithelial hemorrhages, color changes to brown or black dots (siderosis), ulcers, and rarely strictures [1,2]. The presence of iron in gastrointestinal biopsy specimens may be due to iron overload states, including hemochromatosis and multiple blood transfusions, as well as being secondary to iron supplementation [3]. One report has described the occurrence of a flat rounded pale lesion in the stomach, believed to be related to oral iron therapy [1]. The changes of the esophageal ridge-like lesions which we describe are hitherto unreported and add to the spectrum of gastrointestinal endoscopic findings related to oral iron ingestion.

Department of Gastroenterology, Postgraduate Institute of Medical Education and Research, Chandigarh, India

Conflict of Interest: None

Correspondence to: Dr Vishal Sharma, Assistant Professor, Department of Gastroenterology, Postgraduate Institute of Medical Education and Research, Chandigarh, India, e-mail: docvishalsharma@gmail.com

Received 7 September 2016; accepted 17 September 2016; published online 27 January 2017

DOI: <https://doi.org/10.20524/aog.2017.0124>

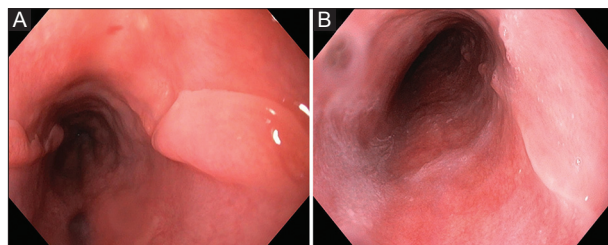


Figure 1 (A) Esophageal ridges. (B) Reduction in size of lesions at 3 months

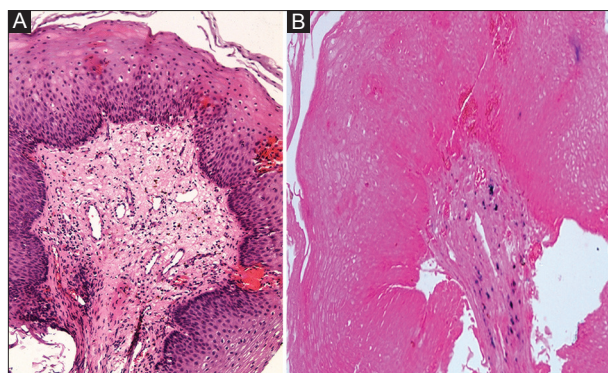


Figure 2 (A) Esophageal biopsy showing iron deposition in the lamina propria covered by an intact epithelium (hematoxylin and eosin X 400). (B) Iron deposition confirmed on iron stain (Perl's Prussian blue X 200)

References

1. Zhang X, Ouyang J, Wiczorek R, DeSoto F. Iron medication-induced gastric mucosal injury. *Pathol Res Pract* 2009;**205**:579-581.
2. Abraham SC, Yardley JH, Wu TT. Erosive injury to the upper gastrointestinal tract in patients receiving iron medication: an underrecognized entity. *Am J Surg Pathol* 1999;**23**:1241-1247.
3. Kaye P, Abdulla K, Wood J, et al. Iron-induced mucosal pathology of the upper gastrointestinal tract: a common finding in patients on oral iron therapy. *Histopathology* 2008;**53**:311-317.