

## Pseudomelanosis Duodeni

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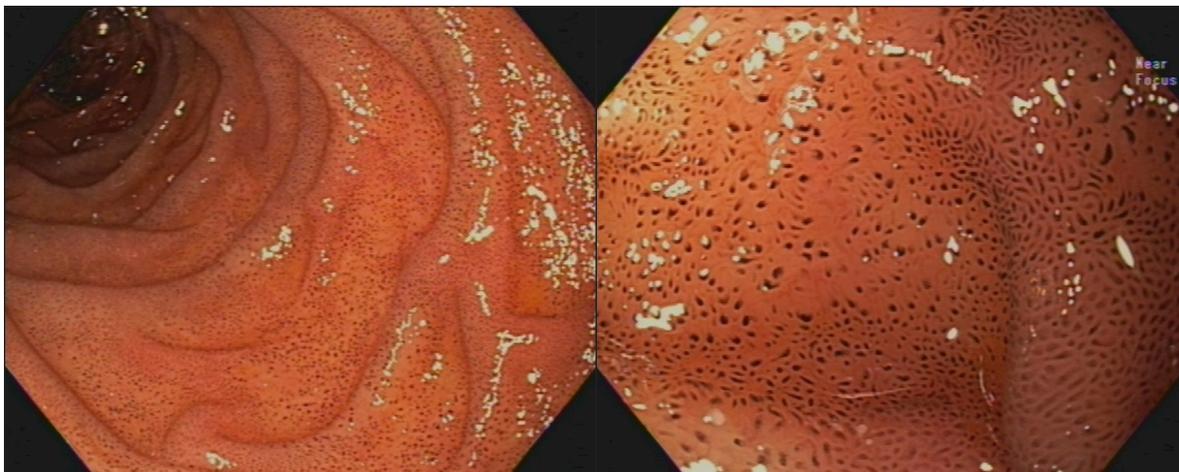
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### Case Report

A 55-year-old male with history of coronary artery disease, chronic kidney disease stage 4, diabetes mellitus, uncontrolled hypertension (on multiple antihypertensive medications), and iron deficiency anemia was referred for esophagogastroduodenoscopy (EGD) for evaluation of intractable nausea and vomiting. EGD showed black speckled pigmentation of the duodenal mucosa (Figure 1). Duodenal biopsy revealed hemosiderin deposition in the lamina propria of the duodenum, consistent with a diagnosis of pseudomelanosis duodeni (PMD; Figure 2).

PMD is the rare endoscopic appearance of black speckled pigmentation of the duodenum commonly seen in females in the sixth and seventh decades of life.<sup>1,2</sup> The most common extracolonic site for pseudomelanosis of the gastrointestinal tract is the duodenum.<sup>3</sup> While melanosis coli is secondary to accumulation of lipofuscin in the macrophages of the lamina propria, the predominant pigments deposited in PMD are iron sulfide and hemosiderin (Figure 3).<sup>3,4</sup> Contrary to association of melanosis coli with anthraquinone laxatives, PMD has no such reported links. PMD has been associated with several medical conditions, including end-stage renal disease, hypertension, chronic heart failure, diabetes mellitus, gastrointestinal hemorrhage, and medications including anti-hypertensives and iron supplementation.<sup>1,2</sup>



**Figure 1.** Black speckled pigmentation of the duodenal mucosa shown on EGD.

### Disclosures

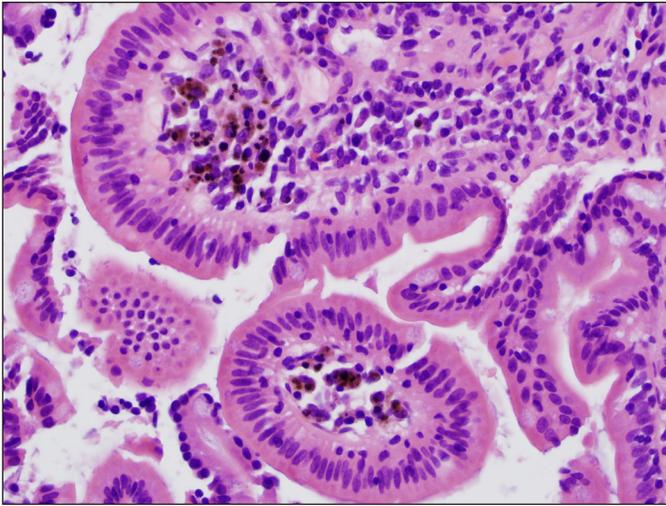
Author contributions: A. Sathyamurthy wrote the manuscript and provided the endoscopy images. H. Chela and Z. Arif reviewed the literature and wrote the manuscript. Z. Arif provided the endoscopy images. J. Holly provided the histopathology images. M. Arif supervised manuscript creation and is the article guarantor.

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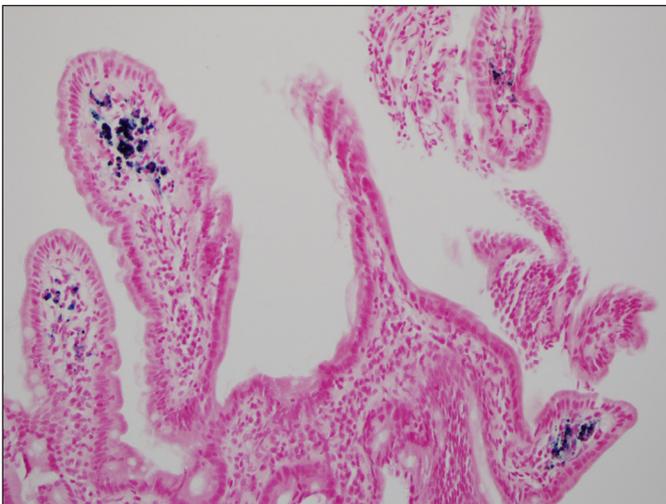
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**Figure 2.** Lamina propria slide showing plasma cells, lymphocytes, and pigmented macrophages consistent with pseudomelanosis duodeni.



**Figure 3.** Blue pigmentation on iron Prussian stain of pseudomelanosis duodeni confirming that the pigment is iron.

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