A Rare Cause of Whole Gastrointestinal Duct Edema and Multiple Small Intestinal Polypoid Ulcers

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Question: A 60-year-old man complaining of recurrent melena for > 2 months, accompanied by fatigue and anemia, was admitted to our gastroenterology ward. He denied experiencing hematemesis, abdominal pain, fever, osteodynia, or arthralgia. His medical history included a 6-year history of alcoholic hepatocirrhosis and type 2 diabetes mellitus. Colonoscopy found no evidence of hemorrhage. However, gastroduodenoscopy showed multiple polypoid lesions in the duodenum (Figure A, B). An abdominal computed tomography (CT) scan was performed (Figure C).

What is the underlying condition leading to the endoscopic and CT findings?

Look on page 000 for the answer and see the Gastroenterology website (www.gastrojournal.org) for more information on submitting your favorite image to Clinical Challenges and images in GI.

Conflicts of interest
The authors disclose no conflicts.

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An abdominal CT scan (Figure D) showed gastric and whole intestinal wall thickening of ≤2 cm. Pathology (Figure E) demonstrated that diffuse plasmacytoid cells, eosinophilic granulocytes, and lymphocytes infiltrated into the lamina propria. Immunohistochemically, the plasmacytoid cells were positive for the common plasma cell marker CD38, and in situ hybridization indicated that they were κ-Ig light-chain restricted (Figure F). Results of the subsequent bone marrow aspirate revealed 27.5% of atypical plasma cells. Serum electrophoresis and immunofixation showed an M spike of IgA-κ. Together, these findings confirmed a final diagnosis of a multiple myeloma (MM) involving the whole gastrointestinal (GI) duct, which was the cause of his melena.

MM is a malignant hematologic neoplasm, primarily involving the bone marrow, and has a potent tendency to involve other organs and to present with various clinical manifestations. The clinical features of MM with GI involvement are uncommon. Patients may present with nausea, vomiting, diarrhea, protein loss, malabsorption, intestinal obstruction, and hemorrhage. Endoscopic findings can manifest as 4 types: a discrete ulcer, ulcerating mass, thickening of the mucosal fold, and mucosal polyp. However, GI bleeding in MM has only been reported in a few patients. A biopsy reaching the submucosal layer and bone marrow biopsy is essential. Diagnosis of MM as a cause of the GI duct wall edema and multiple small intestinal polypoid ulcers is challenging. An interdisciplinary approach is mandatory to establish such a diagnosis.

References

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