IMAGES OF THE ISSUE

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A Rare Case of Chronic Diarrhea

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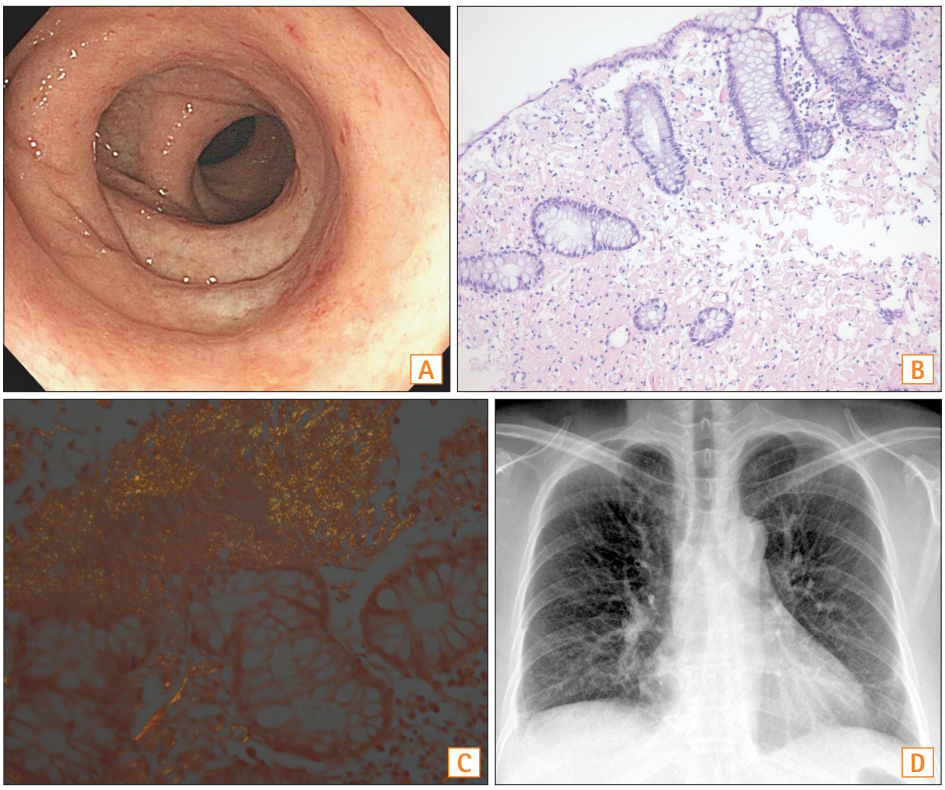

Question: A 49-year-old woman presented with a 6-month history of diarrhea. She had a history of bronchial asthma, but she was not receiving any medication. Physical examination revealed generalized and pretibial pitting edema. In addition, she complained of mild exertional dyspnea but denied abdominal pain, nausea, fever, and recent antibiotics use. Laboratory test results revealed trace proteinuria, thrombocytosis, hypoalbuminemia, and hypogammaglobulinemia. Colonoscopy showed diffuse mucosal edema through the entire colon, with multiple reddish erosions and contact bleeding (Fig. A). On colonoscopic biopsy, homogenous amyloid deposits were seen in the parenchyma and vessels (Fig. B, H&E, ×200), and Congo red staining for the amyloid, coupled with polarized light, demonstrated the characteristic apple-green birefringence (Fig. C, Congo red, ×400). Chest radiography revealed mild cardiomegaly and pulmonary edema (Fig. D). In urine immunofixation, electrophoresis showed a prominent M-peak on the lambda light chain. The peripheral blood smear finding was only thrombocytosis, and bone marrow aspiration showed 8–10% plasma cells of all nucleated cells without Congo red positivity. What is the diagnosis?

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Answer to the Images: Colonic Amyloidosis (AL Type; Primary Amyloidosis)

Amyloidosis is a disorder characterized by the extracellular deposition of an amorphous substance that stains with Congo red, showing an apple-green birefringency under polarized light microscopy.[1] In primary amyloidosis, the amyloid is composed of the variable portion of the immunoglobulin light chains. These light chains are synthesized by a monoclonal population of plasma cells. The clinical symptoms are caused by the deposition of amyloid in different organs and tissues, impairing their normal function. Histological involvement of the intestinal tract is common but usually asymptomatic. When gastrointestinal symptoms occur, they are more often related to autonomic dysfunction than to amyloid infiltration of the gastrointestinal tract.[2] When amyloid fibrils infiltrate the colon, amyloidosis must be differentiated from inflammatory bowel disease, ischemic colitis, malignant diseases, and collagenopathies. Macroscopic aspect varies from polypoid lesions to nodules, ulcerations, and petechial lesions.[3] In the present case, the patient had cardiac involvement (stage 3 diastolic dysfunction with a small amount of pericardial effusion) and also received chemotherapy.

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