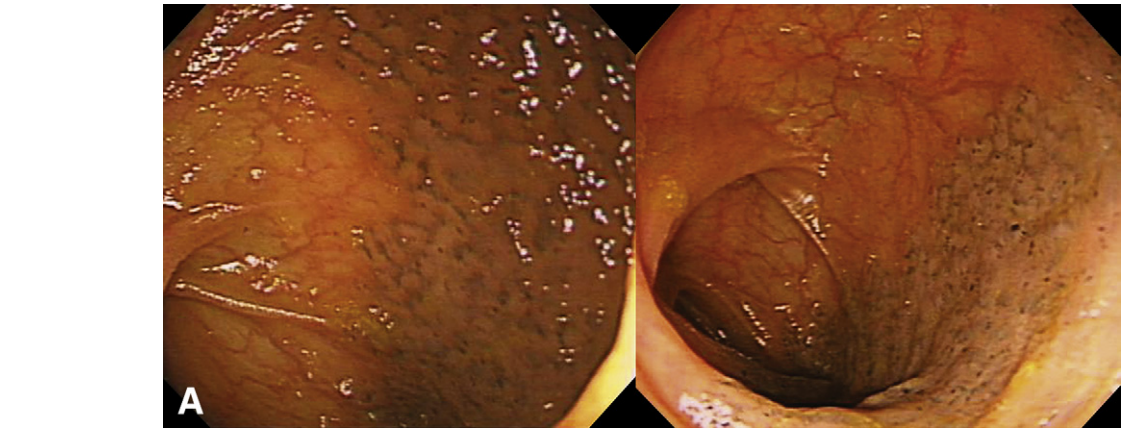
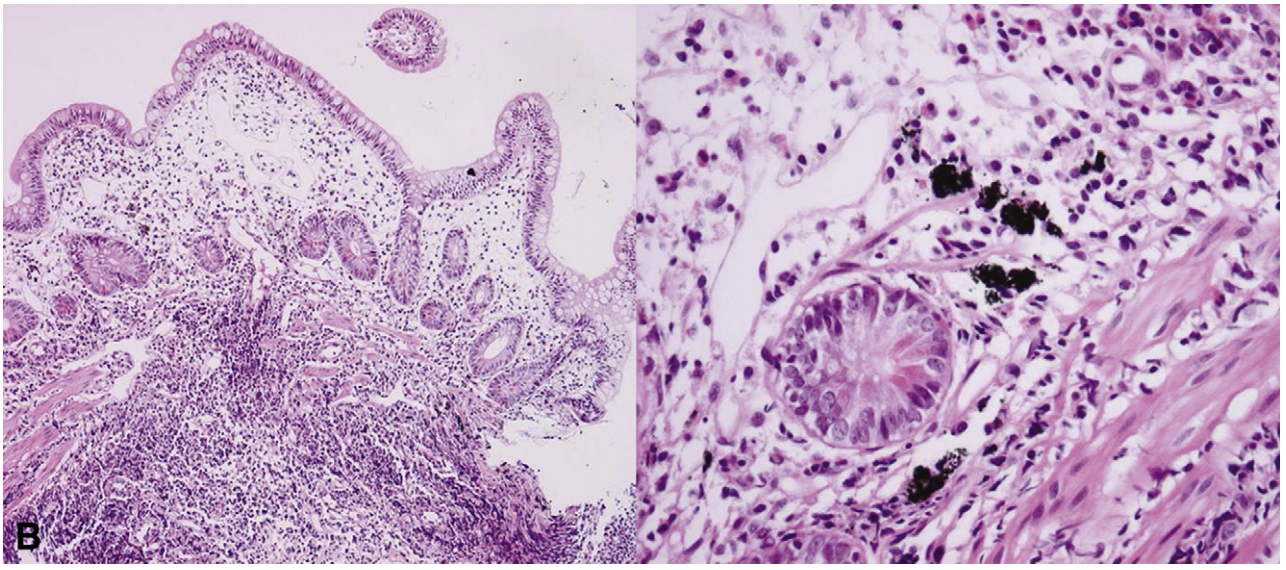
Melanosis ilei associated with chronic ingestion of edible charcoal





A 42-year-old man presented with chronic abdominal discomfort and dyspepsia. His medical history otherwise was not significant. He neither smoked nor used anthranoid-containing laxatives or herbs, but for 2 years had been consuming an edible pine charcoal product made by burning pine slowly in a kiln with little air. On presentation, results of clinical examination and routine laboratory tests were normal. EGD and colonoscopy were performed. EGD showed findings of chronic gastritis, and colonoscopy revealed a speckled pattern of dark pigmentation in the terminal ileal mucosa, which covered almost half of the visible ileal wall (**A**); none of the colon appeared pigmented. Histologically, biopsy specimens confirmed the presence of dark black coarse granules, typical anthracotic pigmentation, in the lamina propria (**B**, *right*; H&E stain, orig. mag. ×200; *left*, H&E stain, orig. mag. ×40). Results of HMB45 immunohistochemical staining for melanoma and Prussian Blue staining for iron were negative. This case illustrates melanosis of the ileum diagnosed by colonoscopy and associated with chronic ingestion of charcoal for health-related reasons.

DISCLOSURE

The authors report that there are no disclosures relevant to this publication.

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Commentary

Melanosis is derived from the Greek words *melas*, black, and *osis*, condition. So it is an appropriate term to describe a variety of conditions associated with dark pigmentation. Confusion occurs, however, because melanocytes produce a pigment called *melanin*, and a variety of compounds may cause dark pigmentation of the bowel, including melanin, lipofuscin, bismuth, iron, hemosiderin, and charcoal. Melanosis of the esophagus and small intestine are rare, but melanosis coli is not uncommon. Melanosis of the duodenum has been associated with chronic renal failure, GI bleeding, ingestion of drugs (hydralazine, propranolol, hydrochlorothiazide, furosemide, and ferrous sulfate), and folic acid deficiency. There is one reported case of jejunal melanosis, likely due to ferrous sulfate and possibly vitamin deficiency, and very few cases of melanosis in the ileum (melanosis ilei), presumably caused by hemosiderin and lipofuscin. Melanosis coli usually results from chronic use of laxatives of the anthranoid group, such as senna and rhubarb derivatives, although it also can be seen in the absence of these compounds. It results from increased apoptosis; the dead cells appear as darkly pigmented bodies taken up by macrophages in the lamina propria. *Pseudomelanosis coli* is a more accurate term because the pigment is lipofuscin. Once thought to be a premalignant condition, it now is not considered such, and pseudomelanosis actually is an aid to diagnosing polyps and cancer, because these lesions do not contain macrophages and, therefore, remain unpigmented and easy to spot against the dark background of the mucosa.

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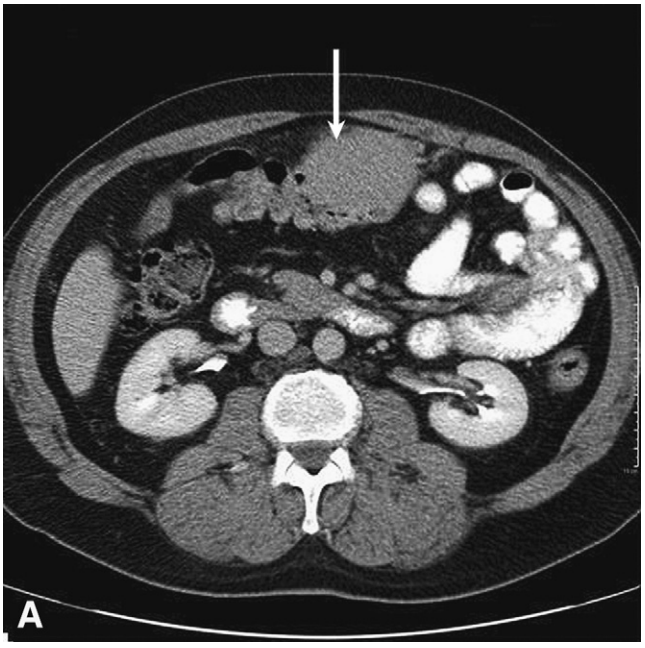
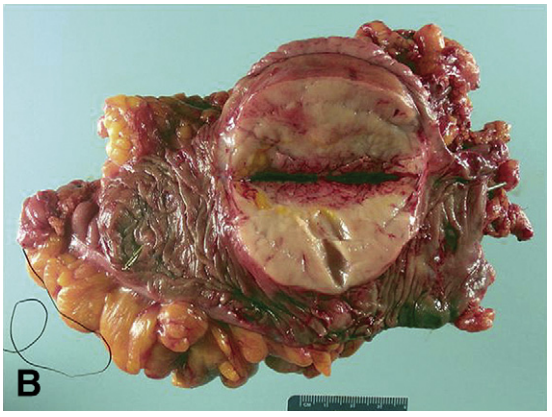
Mucosal associated lymphoid tissue lymphoma of the colon presenting as autoimmune hemolytic anemia (with video)





A 60-year-old man presented with 3 months of worsening exercise intolerance. There was no history of weight loss, fever, night sweats, or any GI symptoms. Examination results were remarkable only for icterus. Laboratory data were noteworthy for a hemoglobin level of 7.2 g/dL (reference range, 13.5-17 g/dL) and reticulocyte count of 17.22% (0.5%-2%). Further evaluation suggested immune hemolytic anemia, and the patient was treated with packed red