

Diffuse Melanosis in Pericolic Lymph Nodes Associated With Laxative Abuse and Colorectal Cancer

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Melanosis coli is an entity described for the first time in 1847 by Virchow and is characterized by the presence of lipofuscin pigment in macrophages of the colonic lamina propria, found in most of the cases in patients who overuse anthracene laxatives.

Its etiology, however, has yet not been elucidated, although correlations with drug use (hydralazine, furosemide, hydrochlorothiazide, propranolol, and iron supplements) and systemic diseases (hypertension, chronic renal disease, gastric hemorrhage, and diabetic mellitus) have been evidenced.¹

This finding is today recognized as benign, and it is an incidental finding that can be found in biopsies or surgical specimens examined for inflammatory bowel diseases or colonic cancer.²

There are many reports and studies in the literature investigating the nature of this pigment and there are reports of it in other organs of the gastrointestinal tract different from the colon such as the stomach, duodenum, and jejunum.

On the other hand, melanosis coli in lymph nodes has been rarely described, since only 3 reports, for a total of only 6 patients, are present in the literature so far.³

An 82-year-old male patient came to our attention for chronic constipation with abdominal pain for a few months and reported frequent use of laxatives. Written informed consent was obtained from the patient.

Colonoscopy discovered a diffuse and severe melanosis coli and revealed a large polylobulated polyp of the ascending colon, which occupied the entire lumen, and, in the descending colon, an ulcerated neoplasm involving one third of the colonic circumference. Endoscopic biopsies of the large polyp revealed adenomatous polyp, while the left neoplasm turned out to be an adenocarcinoma. At microscopic examination, the tumor was classified as low-grade adenocarcinoma (G2), and all the lymph nodes were free from metastasis. In correspondence of the neoplasia, of lamina propria of the adjacent mucosa, and in the perivisceral lymph nodes abundant macrophages, isolated and in aggregates, stuffed with granular

brownish material that displaced the nucleus to the periphery of the cell were present (Figure 1A). These macrophages were localized massively in marginal and intranodal sinuses, as seen in reactive patterns.

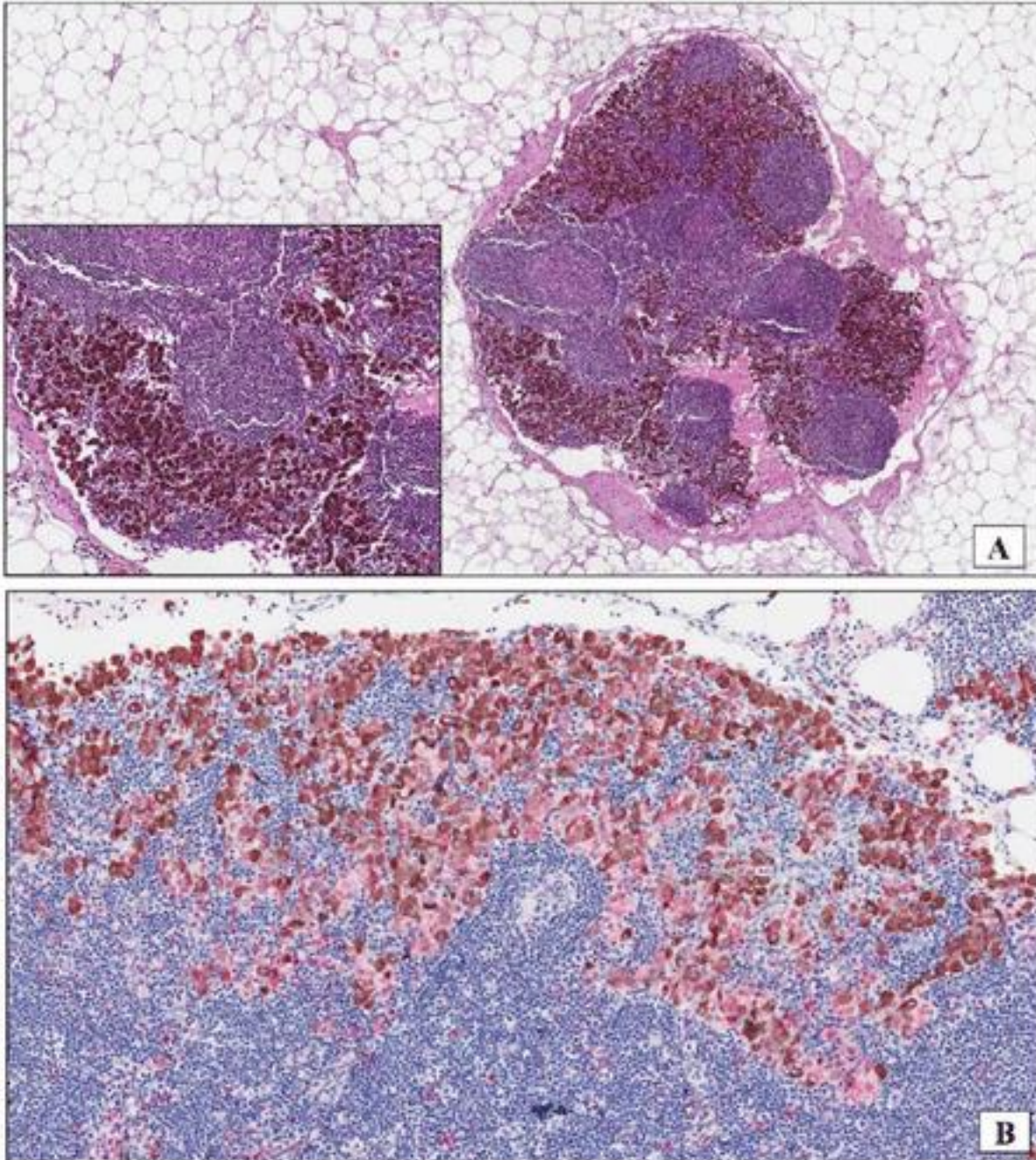


Figure 1. (A) Pericolic lymph node showing massive presence of macrophages filled with brown, granular pigment (EE, 3x, inset 10x). (B) Immunoreactivity for CD68 confirmed the macrophage nature of the elements (10x).

There was widespread immunoreactivity for CD68 (Figure 1B), which confirmed the macrophage nature of the elements.

Curiously, both colonic mucosa and nodal macrophages showed weak immunoreactivity for melanocytic markers such as Melan A and HMB45; no staining was found for cytokeratins (AE1 and AE3) and S-100 protein.

Histochemically, the pigment stained dark red with periodic-acid-Schiff staining (with and without digestion) and no reaction was found for iron by Perls' staining.

Declaration of Conflicting Interests

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