

◆ CASO CLÍNICO

Overestimation of ulcerative colitis due to *melanosis coli*

Jorge A Zapatier,¹ Alison Schneider,² Javier L Parra³

¹ Department of Internal Medicine, ² Department of Gastroenterology, Cleveland Clinic Florida.

³ Division of Gastroenterology, University of Miami Miller School of Medicine.

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Summary

Melanosis coli is a benign pigment deposition in the colonic mucosa that can be seen at the time of colonoscopy, especially in patients with history of laxative use. In conditions in which the endoscopic findings influence therapeutic decisions, *melanosis coli* can lead to overestimation of disease aggressiveness and unnecessary therapy. We describe a case in which the finding of *melanosis coli* affected the treatment of a patient with mild ulcerative colitis exacerbation.

Key words. *Melanosis coli*, ulcerative colitis.

Sobreestimación de la colitis ulcerosa debido a *melanosis coli*

Resumen

La *melanosis coli* es un depósito benigno de pigmento en la mucosa del colon que puede ser vista durante una colonoscopia, especialmente en pacientes con historia de abuso de laxantes. En las condiciones en las que los hallazgos endoscópicos pueden influenciar las decisiones terapéuticas, la *melanosis coli* puede llevar a una sobreestimación de la agresividad de la enfermedad y a una terapia innecesaria. Describimos un caso en el cual la presencia de *melanosis coli* afectó el tratamiento de un paciente con una exacerbación leve de una colitis ulcerosa.

Palabras claves. *Melanosis coli*, colitis ulcerosa.

Melanosis coli is a benign mucosal pigmentation that may be seen within the colon at the time of colonoscopy. In conditions in which the management is based on endoscopic presentation, *melanosis coli* can lead to overestimation of endoscopic findings and excessive aggressiveness in the treatment. We describe a case in which the finding of *melanosis coli* affected the clinical management of a patient with ulcerative colitis.

Case report

A 53 year-old woman with history of ulcerative colitis presented to her physician with a five-day history of bloody diarrhea. It was described as blood within the stools, having between 3 to 4 bowel movements per day. She was taking no medication for her colitis at the time and her physical examination was unremarkable including normal vital signs and a soft non-tender abdomen. Laboratory analyses revealed an erythrocyte sedimentation rate of 19 mm/h (normal value <20 mm/h), and an albumin level of 3.8 g/dL (normal value 3.5 to 5 g/dL). Diagnosis of ulcerative colitis exacerbation was made, the patient was started on a low dose oral prednisone, and an outpatient colonoscopy was scheduled. At the time of colonoscopy, findings included the appearance of diffuse mucosal dark discoloration with granularity and friability in ascending, transverse and descending colon. Focal areas of erythema were noted but no ulcerations were appreciated (Figure 1). The above finding were present throughout the entire colon and interpreted as severe ulcerative colitis. The patient was admitted after her procedure and placed on intravenous methylprednisolone. The patient had an uneventful hospitalization without complaints of fever, abdominal pain or further diarrhea, and tolerated diet progres-

Correspondence: Alison Schneider

Department of Gastroenterology, Cleveland Clinic Florida 2950 Cleveland Clinic Blvd. Weston, Florida 33331, USA.

Tel.: 954-659-5646 / Fax: 954-659-5647

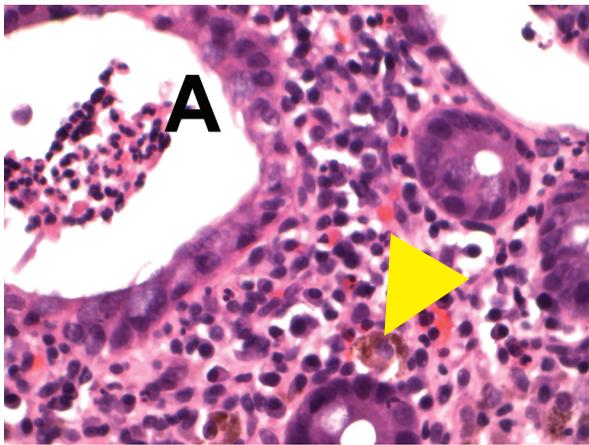
E-mail: schneia2@ccf.org

sion. Histological analysis showed the presence of inflammation with scattered crypt abscesses consistent with ulcerative colitis, together with diffuse pigment containing macrophages at the lamina propria consistent with *melanosis coli* (Figure 2). The patient was discharged on the third day in stable conditions with minimal symptoms.

Figure 1. Image of the sigmoid colon showing diffuse mucosal discoloration.



Figure 2. Image of the colon biopsy observed with light microscope. Signs of acute inflammation were evidenced by the presence of crypt abscesses (A). Scattered pigment containing macrophages were visualized at the lamina propria (yellow arrow).



Discussion

Ulcerative colitis is an autoimmune based entity, one of the two diseases that constitute the inflammatory bowel disease syndrome. The management of ulcerative colitis is based on clinical and endoscopic findings, and hospitalization with intravenous

steroid therapy is often required for severe exacerbations.¹⁻³ Our patient had a presentation suggesting mild ulcerative colitis (less than 4 bowel movements per day, no fever, no tachycardia, and normal erythrocyte sedimentation rate) based on the modified Truelove and Witts' criteria that use a combination of clinical findings and laboratory parameters.⁴ The Ulcerative Colitis Disease Activity Index or Mayo score, is another validated score used to assess severity of ulcerative colitis and its response to therapy. With the partial Mayo score, in which only clinical parameters are assessed, our patient had a score of 5 (3-4 bowel movements, blood with stool, and physician rating disease as mild) still meeting criteria for mild disease.⁵ Endoscopic visualization suggested extensive discoloration with granularity and friability that mimicked extensive mucosal compromise, what was interpreted as an endoscopic Mayo subscore of 2, suggestive of moderate to severe disease.

Melanosis coli is a benign and reversible condition characterized by pigmentation of the colonic mucosa secondary to the macrophage digestion of lipofuscin. This may occur from anthraquinone laxatives like senna, cascara, and rhubarb.⁶ However, it is not pathognomonic of laxative abuse and can result from other factors. Previous reports have documented the presence of *melanosis coli* in patients with suspected ischemic colitis in the setting of atrial fibrillation, colonic stoma, and abdominal trauma.⁷⁻⁹ In one case, the patient underwent subtotal colectomy with end ileostomy, and the pathology showed only *melanosis coli* with no evidence of bowel ischemia or infarction. The association between *melanosis coli* and ulcerative colitis has been described in a previous study, and it was suggested that chronic inflammation might be related to the pigment deposition seen in *melanosis coli*, independently of laxative use.¹⁰ Nevertheless, the implications of its co-occurrence in the clinical setting were not addressed.

Our purpose is to highlight the misleading role that *melanosis coli* may have when coexisting with ulcerative colitis. We acknowledge the role of operator interpretation in the final assessment of severity, but in the same token, our case had colonic features that raised concern in the endoscopist. In such situations, the lack of clinical findings of severity should raise suspicion for secondary etiologies obscuring or overestimating endoscopic severity. Biopsies play an important role in the final estimation of inflammatory bowel diseases and detection of other pathologies.

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