

## **Case study**

### **MELANOSIS COLI: A RARE ENTITY IN ELDERLY PATIENTS PRESENTING WITH CONSTIPATION**

#### **Abstract**

Melanos coli is a condition in which there is blackish to brown discoloration of colon and is commonly associated with chronic anthroquinolone laxative usage. It is frequently diagnosed as an incidental finding on colonoscopy or histopathological evaluation. Here, we present to you a case of a sixty-six years old man with history of constipation and laxative use.

**Keywords:** melanos coli, laxative, constipation

#### **Introduction:**

A condition in which the colon develops a brown to blackish discoloration is termed as melanos coli (MC). It is caused by the accumulation of pigment in macrophages within the lamina propria. Initially it was thought to be caused by melanin but later on, lipofuscin deposited in macrophages within the lamina propria as a result of apoptosis is found to be responsible for this condition.<sup>1-3</sup> It is a benign condition and is often an incidental finding on colonoscopy or histopathologic evaluation.<sup>4,5</sup> The association of this disease is most commonly linked with chronic use of anthraquinolone laxatives and is often found in patients with chronic constipation.<sup>3,6-8</sup> Several studies have revealed an association

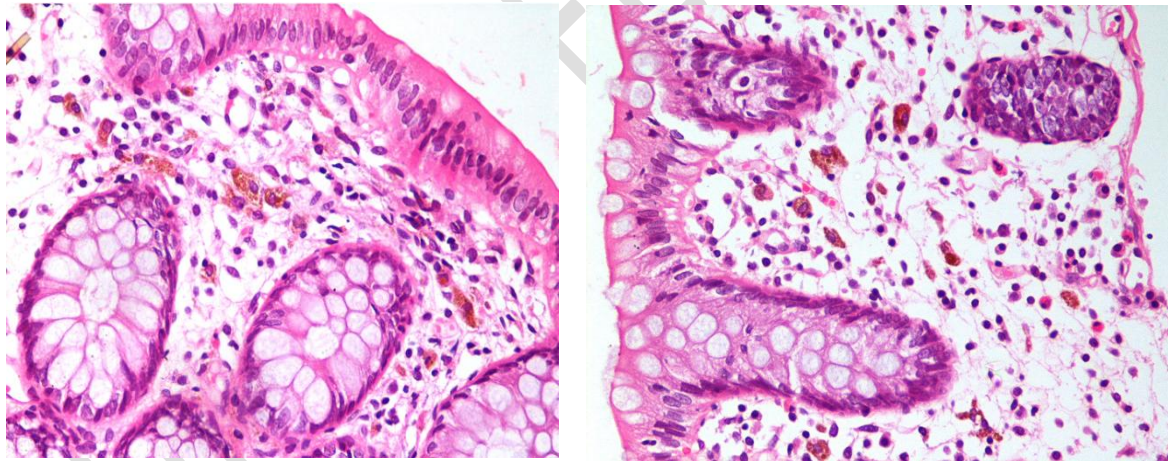
between melanosis coli and the chronic use of anthraquinone laxatives, such as cascara sagrada, aloe, senna, rhubarb, and frangula.<sup>9,10</sup> This condition is observed in up to 70% of chronic users of implicated laxatives and the discoloration seems to appear within 4-12 months of laxative usage. Being a benign and reversible condition, the pigment generally disappears within 1 year of stopping laxatives.<sup>11</sup>

We present to you a case of sixty –five years old male who presented with altered bowel habits and weight loss and on workup was found to have melanosis coli.

### **Case Presentation:**

A sixty-five year old man presented to us in an outpatient department with complaint of change in frequency of stool since last 3 months from once daily to twice a week associated with change in stool caliber and passage of hard lumpy stool associated with per rectal bleeding post defecation in the form of 1-2 drops occasionally. There is also a history of undocumented, unintentional weight loss along with feeling of abdominal fullness after taking the meal. He use to have similar complain of constipation on and off since last 3 years and has been on anthroquinolone laxatives since the same duration of time in the form of senna tablets 13.5 mg once daily. Prior to the hospital visit, there is history of ingestion

some homeopathic medications in the form of syrup for the above mentioned complaints for 15 days. The patient was unable to recall the name of the homeopathic medications. His medical history is significant for diabetes for last 10 years and is well controlled on metformin 500 mg twice daily. On examination, abdomen was soft to palpation but had mild tenderness in left iliac fossa. Vital signs and laboratory investigations were normal. So, he was planned for colonoscopy which was normal with colonic biopsy revealing features of many scattered macrophages containing black to brown pigment likely suggestive of melanosis coli (**Figure 1**).



**Fig 1: Fragments of colonic mucosa A and B: Both of the images showing intact cryptal architecture with underlying stroma showing mild lymphoplasmocytic infiltrate and many scattered macrophages containing blackish ,brown pigments suggestive of melanosis coli**

## Discussion

Melanosis Coli occurs due to the deposition of blackish brown pigment called lipofuscin in the lamina propria of the colon<sup>1-3</sup>. There has been association of melanosis coli with the chronic use of anthroquinone laxatives. These include several plants, such as aloe, cascara, and senna. frangula and rhubarb and are sometimes used as over the counter laxatives.<sup>3,6,7</sup> These agents hinder the regular capability of epithelial tissue to function, preventing absorption, secretion and motility and causing apoptosis of the cells.<sup>5,6,12</sup> It should be appropriately termed as "pseudo melanosis coli" based on the histology of the disorder as the change in pigmentation of the mucosa is caused by lipofuscin and not melanin.<sup>3-5,7</sup> It is an incidental finding on endoscopy or histology, and is most commonly located in the cecum and ascending colon.<sup>7</sup> Development of melanosis coli can take place 4 to 12 months after the use of laxatives.<sup>4,6,12</sup> The risk of developing melanosis coli include the elderly patients , those with irritable bowel syndrome, and those with history of

chronic constipation.<sup>5</sup> Studies have shown that among the patients who were diagnosed to have melanosis coli, 95% of them have history of chronic use of laxatives.<sup>8</sup> In our case, the patient had history of chronic constipation from three years and was on laxatives from the same duration. His colonoscopy was normal with histology of colonic biopsy consistent with features of melanosis coli.

## **Conclusion**

Melanosis coli should be considered in patients with history of constipation taking laxatives for a long duration of time.

## **Consent**

As per international standard or university standard, patients' written consent has been collected and preserved by the author(s).

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