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Melanosis coli



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Sincerely,

Hans Bjorknas

Editor-in-Chief, The GASTROLAB Endoscopy Image Journal

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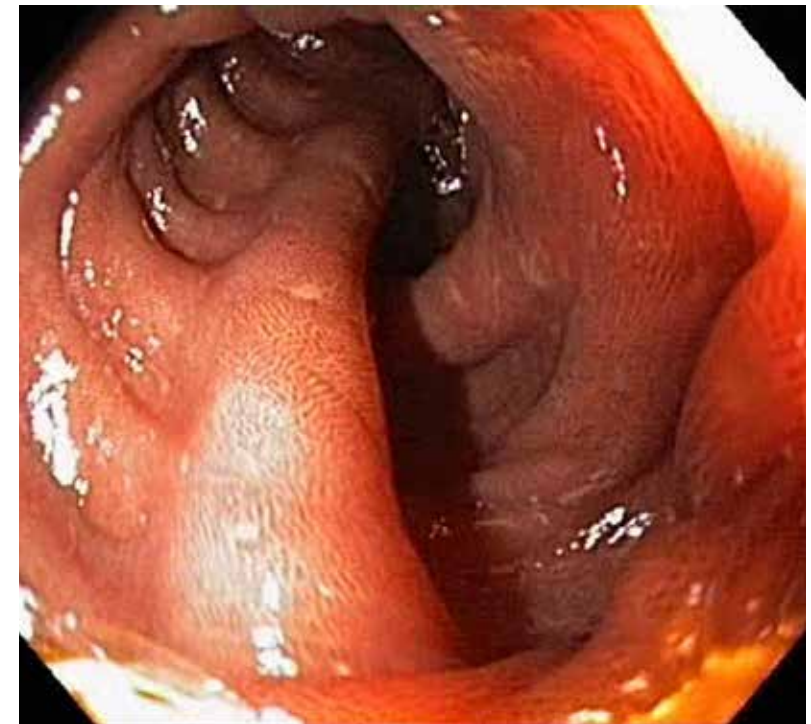
Melanosis Coli: A Benign Colonic Pigmentation Disorder

Abstract: Melanosis coli, also known as pseudomelanosis coli, is a frequent finding during colonoscopy, characterized by brown or black mucosal pigmentation of the colon. This article reviews the etiology, often linked to laxative abuse, particularly anthraquinones, as well as the pigment composition (lipofuscin) and differentiation from melanin. We discuss the asymptomatic nature, typical endoscopic appearance, and the absence of established treatment or significant complications. The article concludes by addressing the inconclusive evidence regarding a potential association with colorectal cancer.

Keywords: Melanosis coli, pseudomelanosis coli, colonoscopy, lipofuscin, laxatives, anthraquinones

Introduction:

Melanosis coli is a benign disorder characterized by the deposition of pigment within the colonic mucosa. Despite its name, the pigment responsible is not melanin, but rather lipofuscin, a byproduct of cellular wear and tear. This article delves into the etiology, clinical presentation, endoscopic features, management, and the ongoing debate regarding its association with colorectal cancer.



Etiology:

The most common risk factor for melanosis coli is the long-term use of certain laxatives, particularly those containing anthraquinones. Examples include senna, cascara sagrada, rhubarb, aloe vera, and frangula. Anthraquinones are believed to stimulate melanogenesis, a process that mistakenly leads to lipofuscin deposition in macrophages within the colonic lamina propria. Other proposed causes include chronic inflammatory bowel disease and heavy metal exposure, but evidence is limited.

Symptoms:

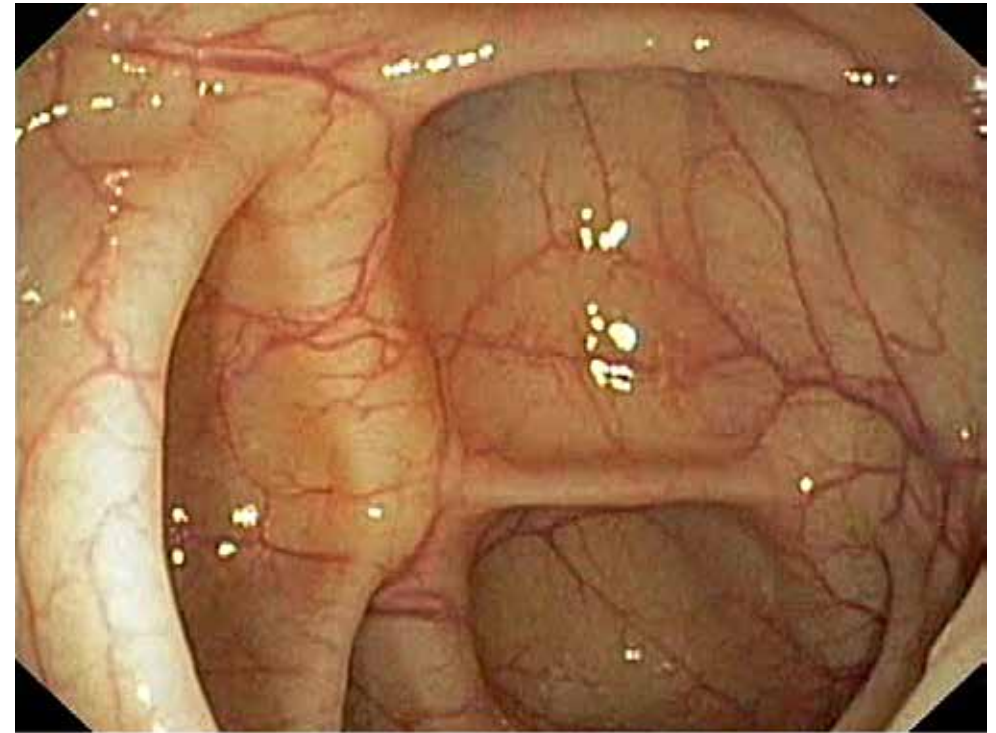
Melanosis coli is typically asymptomatic. It is often incidentally discovered during colonoscopy performed for unrelated reasons.

Endoscopic Findings:

Colonoscopy reveals characteristic brown or black mucosal pigmentation, usually in a patchy or marbled pattern, predominantly affecting the right colon. The pigment does not cause any structural changes to the colonic wall.

Treatment:

Melanosis coli itself does not require specific treatment. The primary approach involves identifying and addressing the underlying cause, such as discontinuing anthraquinone-containing laxatives. Alternative laxatives



Normal colon mucosa and colon mucosa in Melanosis coli. The difference is quite distinct.

like fiber supplements or osmotic agents can be considered.

Complications:

Melanosis coli is not associated with any significant complications. It does not cause inflammation, bleeding, or obstruction.

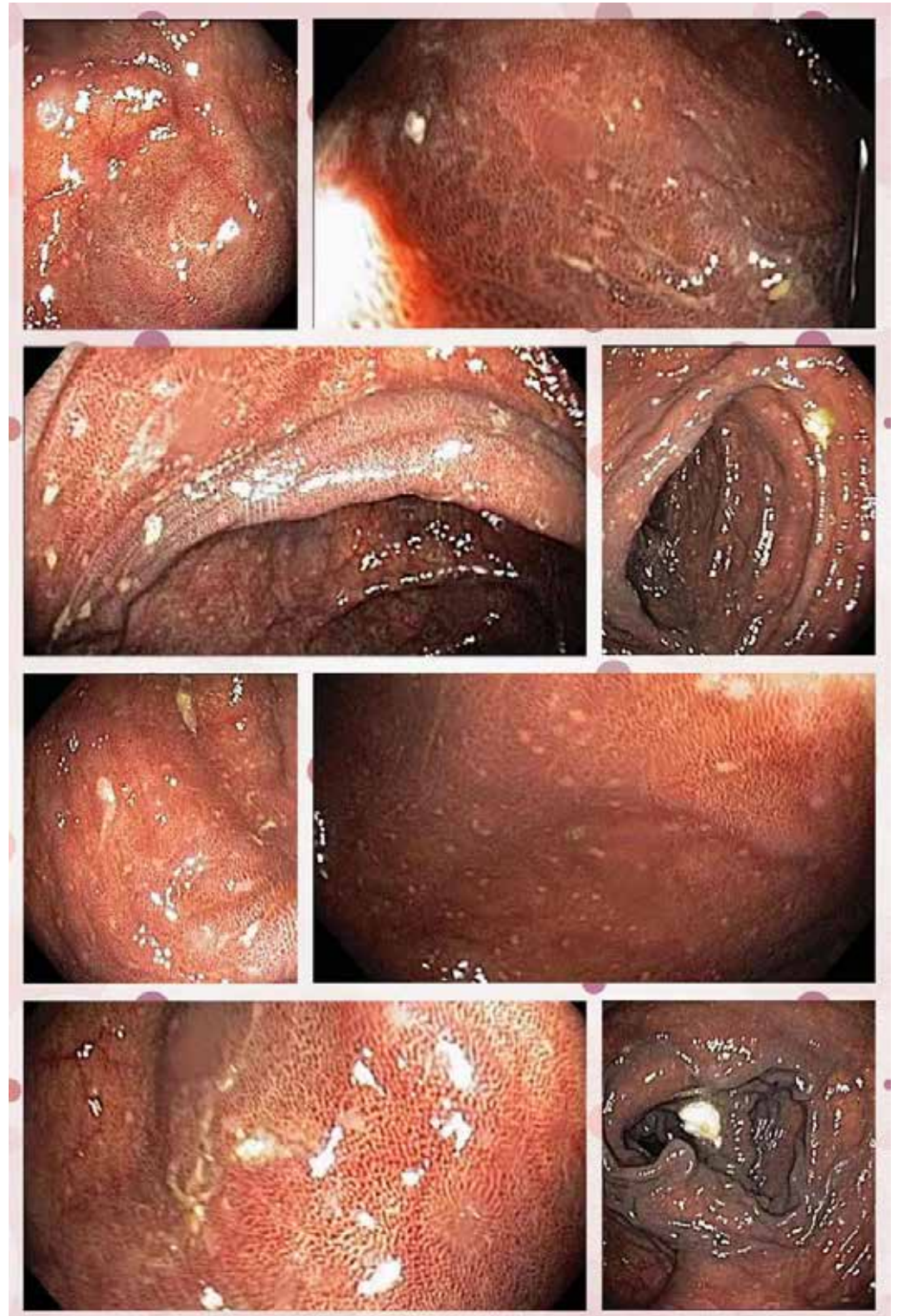
Association with Cancer:

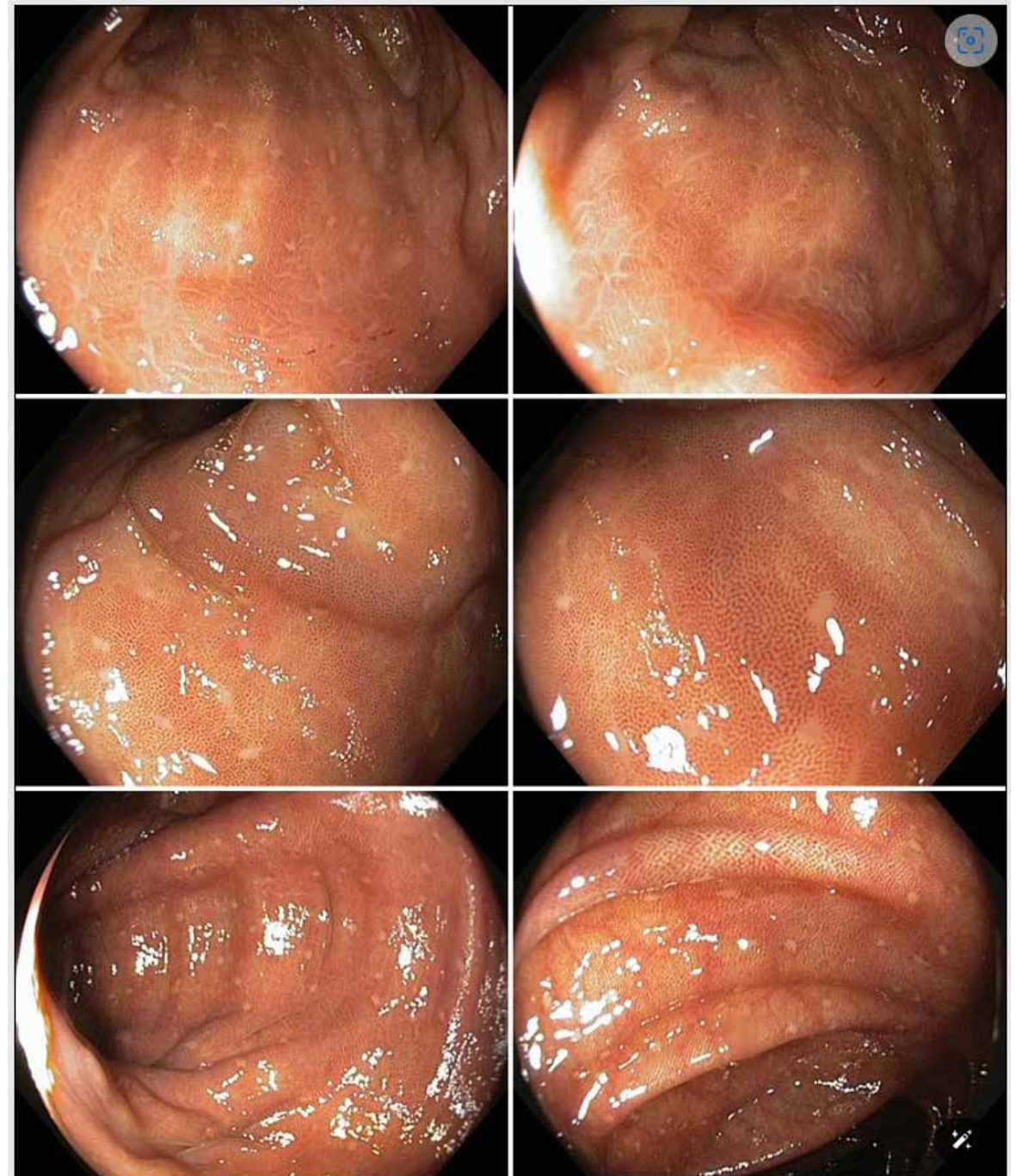
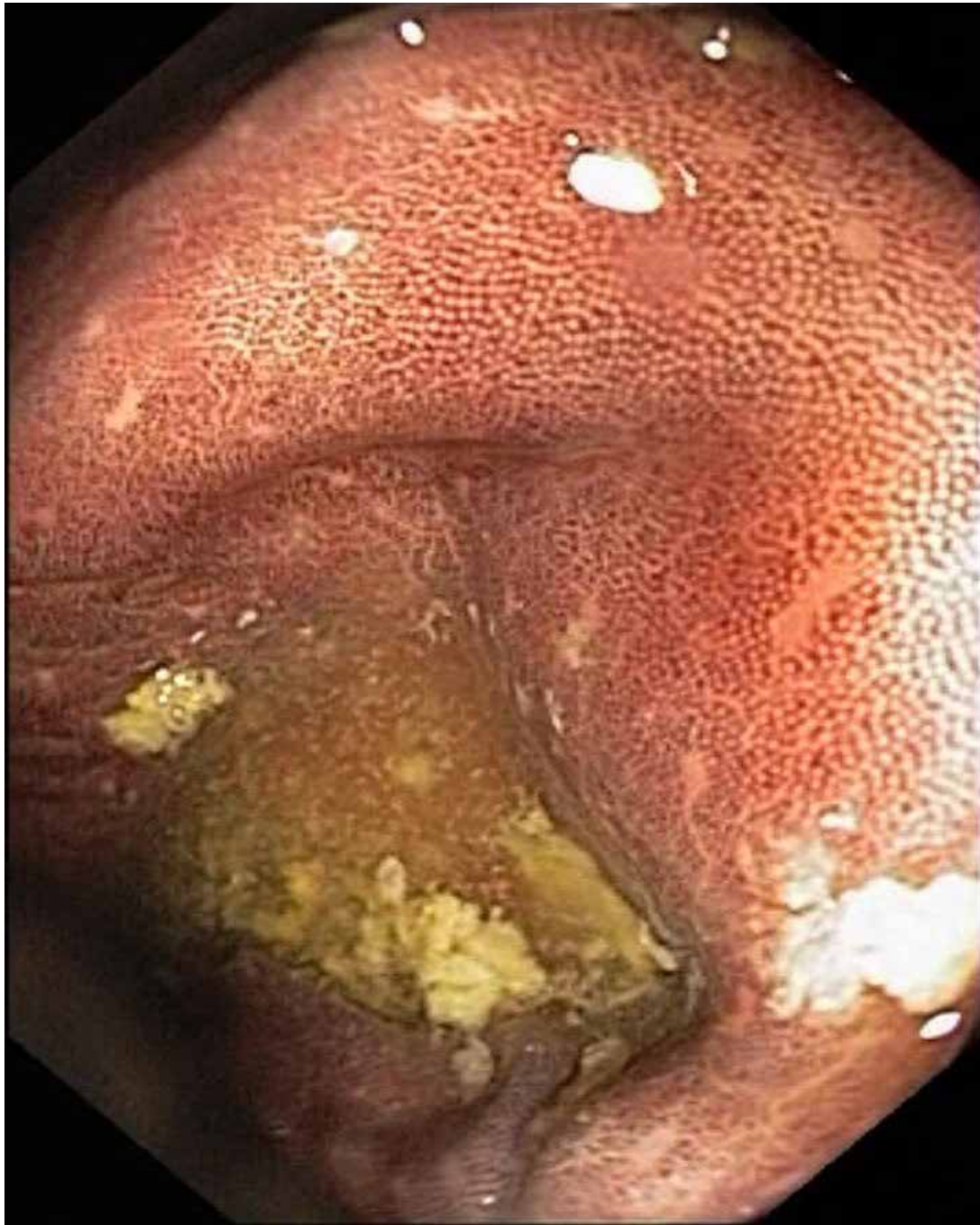
The potential link between melanosis coli and colorectal cancer remains a subject of debate. While some studies suggest a higher prevalence of melanosis in patients with colorectal polyps or cancer, others haven't found a clear association. More research is needed to determine if melanosis coli is a risk factor or merely an incidental finding in these patients.

Conclusion:

Melanosis coli is a benign colonic pigmentation disorder most commonly linked to anthraquinone laxative use. It is asymptomatic and diagnosed on colonoscopy. Management focuses on addressing the underlying cause, and the condition carries no significant complications. The potential association with colorectal cancer requires further investigation.

Note: This article is intended for informational purposes only and should not be construed as medical advice.





Collage: *Melanosis coli*.





Melanosis coli and caecal cancer (adenocarcinoma)

Senna and cancer

J Toxicol. 2009; 2009: 287247.

Is Senna Laxative Use Associated to Cathartic Colon, Genotoxicity, or Carcinogenicity? M. A. Morales,^{1*} D. Hernández,² S. Bustamante,¹ I. Bachiller,³ and A. Rojas⁴ ¹Departamento de Farmacología, Instituto de Ciencias Biomédicas, Facultad de Medicina, Universidad de Chile, 8380453 ²begin_of_the_skype_highlighting 8380453 ³end_of_the_skype_highlighting Independencia, Santiago, Chile ⁴Departamento de Ciencias Biológicas, Facultad Ciencias de la Salud, Universidad Andrés Bello, República 217, Santiago, Chile ⁵Sociedad Asturiana de Fitoterapia, 33005 Oviedo, Asturias, Spain ⁶Facultad de Ciencias de la Salud, Escuela de Medicina, Universidad Católica del Maule, Casilla 617, Talca, Chile

Recommended by Michael Cunningham

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Abstract:

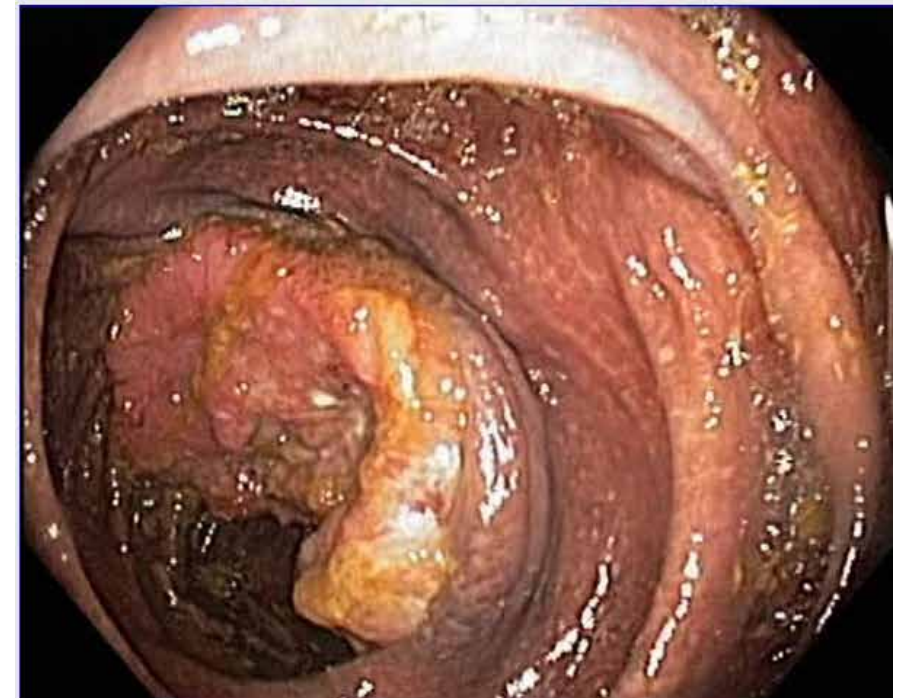
Due to their natural origin, apparent low oral toxicity, effectiveness, and accessibility without a medical prescription, the anthranoid laxatives are a popular remedy for constipation and are frequently used abusively. Therefore, it is important to characterize its harmful and/or toxic effects. The sennosides, main active metabolites of senna, exhibit a very low toxicity in rats, and its genotoxic activity in bacterial strains as well as mammal cells was classified as weak in those cases where it was shown to be significant. The toxicological and mutagenic

status of the crude extract of senna, however, is not as well characterized, and it is necessary to do so since it is frequently, and at the same time incorrectly, believed that the chronic use of anthranoid laxatives is a risk factor for the development of colorectal cancer.

The objective of this article was to review the information that arises in various scientific medical databases using key words such as senna, sen, Senna alexandrina, Cassia angustifolia, sennosides, laxative toxicity, mainly ISI and non-ISI articles of journals with an editorial committee. Web pages of products or companies that publicize or commercialize this type of laxative were not included.

This analysis establishes that

- (1) there is no convincing evidence that the chronic use of senna has, as a consequence, a structural and/or functional alteration of the enteric nerves or the smooth intestinal muscle,
- (2) there is no relation between long-term administration of a senna extract and the appearance of gastrointestinal tumors or any other type in rats,
- (3) senna is not carcinogenic in rats even after a two-year daily dose of up to 300 mg/kg/day, and
- (4) the current evidence does not show that there is a genotoxic risk for patients who take laxatives containing senna extracts or sennosides.



Melanosis coli and caecal cancer (adenocarcinoma)

