

**MELANOSIS COLI ASSOCIATED WITH LAXATIVE HERBAL TEAS INGESTION
IN A BRAZILIAN AMAZON WOMAN: CASE REPORT**

MELANOSIS COLI ASSOCIADO À INGESTÃO DE CHÁS LAXATIVOS HERBAIS EM UMA
MULHER DA AMAZONIA BRASILEIRA: RELATO DE CASO

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ABSTRACT

Objective: to describe the case of a Brazilian Amazon woman presenting macroscopic melanos coli associated with the chronic use of laxative herbal teas. **Case Report:** a 48-years-old woman was referred for evaluation of a diffuse abdominal pain, intestinal meteorism, gastric plenitude, eructation and chronic constipation. The patient confirmed the use of laxatives and herbal teas as auto-medication for several years. Physical examination of the abdomen was normal, except for the presence of pain at colonic topography. Colonoscopy showed a dark pigmentation of the colonic mucosa, beginning in the descending colon and extending to the cecum, consistent with a diagnosis of melanos coli. The patient was treated with prokinetics, lactulosis and antiphysetics and was oriented to keep a fiber rich diet, practice physical exercises and to stop the use of laxatives. She showed a remarkable improvement on her intestinal function within months and is currently being followed ambulatorily. **Final considerations:** melanos coli is a rare complication that may occur in patients using laxatives and herbal teas chronically as auto-medication to treat symptoms of intestinal constipation.

KEY-WORDS: Melanos coli, laxative herbal teas.

INTRODUCTION

Melanos coli (MC) is an abnormal condition characterized by a brown and black pigmentation of the colonic mucosa caused by the presence of lipofuscin in macrophages within the lamina propria (1, 2). It is found during sigmoidoscopy in about 10% of patients over 40 years of age and is commonly associated with the chronic use of laxative drugs and herbal extracts, mainly those containing anthraquinone (1, 3, 4).

OBJECTIVE

The aim of this report is to describe the case of a Brazilian Amazon woman presenting macroscopic MC associated with the chronic use of laxative herbal teas.

CASE REPORT

Anamnesis

A 48-years-old Brazilian Amazon woman was referred for evaluation of one year history of diffuse abdominal pain, intestinal meteorism, gastric plenitude and eructation. She also referred constipation

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and chronic use of various Brazilian Amazon laxative herbal teas for several years without significant improvement on intestinal symptoms. Her past medical history was unremarkable, except for a previous cholecystectomy eight years before.

Physical examination

General physical examination of the patient was normal. Clinical assessment of the abdomen revealed the presence of pain at colonic topography during palpation.

Complementary examination

Laboratory examination of the blood and abdominal ultra-sonography were normal. Colonoscopy showed a dark pigmentation of the colonic mucosa, beginning in the descending colon and extending to the cecum, consistent with a diagnosis of MC (Figure 1).

Treatment

The patient was treated with prokinetics, lactulosis, antiphysetics and was advised to stop the use of laxatives, eat a fiber rich diet and practice physical exercises.

She showed a remarkable improvement on her intestinal function within months and is currently being followed ambulatorily.

DISCUSSION

Melanosis coli (MC) is an uncommon condition characterized by abnormal deposition of a brown or black pigment called lipofuscin in the lamina propria of the colonic mucosa from the cecum to the dentate line (1, 2, 5). Cruveilhier first described the pigmentation of the colonic mucosa in 1829, however it was first named Melanosis coli by Virchow in 1847 (5, 6). It is found in about 10% sigmoidoscopic exams performed in patients over forty years-old and is commonly associated with clinical conditions, such as irritable bowel disease and chronic constipation (1-4).

MC has been considered as a benign and harmless discoloration of the colon. There is no significant association

between colorectal carcinoma and the macroscopic finding of MC, however, since adenomas do not contain the lipofuscin pigment and are easily detected in the dark-colored colonic mucosa as white spots, an association with colorectal polyps has been reported (7, 5). In the present study, no adenomas were detected in the colonic mucosa of our patient.

Anthranoid-containing herbal laxatives have been described as the leading cause of MC and the underlying mechanisms involved in the development of a brownish colonic mucosa is well documented (8). The ingestion of such laxatives induces cecal bacteria to convert anthracene from its glucuronated form to its active form, resulting in damage and death by apoptosis of the colonic epithelial cells. The remaining apoptotic bodies are phagocytized by intraepithelial macrophages and carried through fenestrae in the epithelial basement membrane to the lamina propria. Here, the digestion of apoptotic bodies is completed as they are converted into typical lipofuscin pigment by enzymatic action in the lysosomes of the macrophage, which gives MC its characteristic black appearance (5, 8).

The use of herbs in the treatment of gastrointestinal and liver disease is a relatively old phenomenon and is now considered to be used by up to 50% of the Western population (9). Plant extracts are commonly used to manage the conventional symptoms of constipation, however the increasing use of anthranoid-containing herbal laxatives, such as cascara sagrada, senna, frangula, oleos and rhubarb, may be responsible for the rising incidence of MC (3, 6, 7). The role of such substances in the etiology of MC has been well demonstrated experimentally (8), but few reports exist assessing the risk of the chronic ingestion of Brazilian Amazon herbs for developing MC. In the present report, our patient referred chronic use of many Brazilian Amazon herbal medicines without significant clinical improvement of constipation.

CONCLUSION

In conclusion, the evidence presented in this report suggests a possible association between MC and the chronic ingestion of Brazilian Amazon herbs as self-medication for the treatment of

constipation. Therefore, until further scientific assessment have demonstrated its potential benefits and dangers, it seems reasonable to discourage the use of Brazilian Amazon herbal medications for the treatment of gastrointestinal disorders.

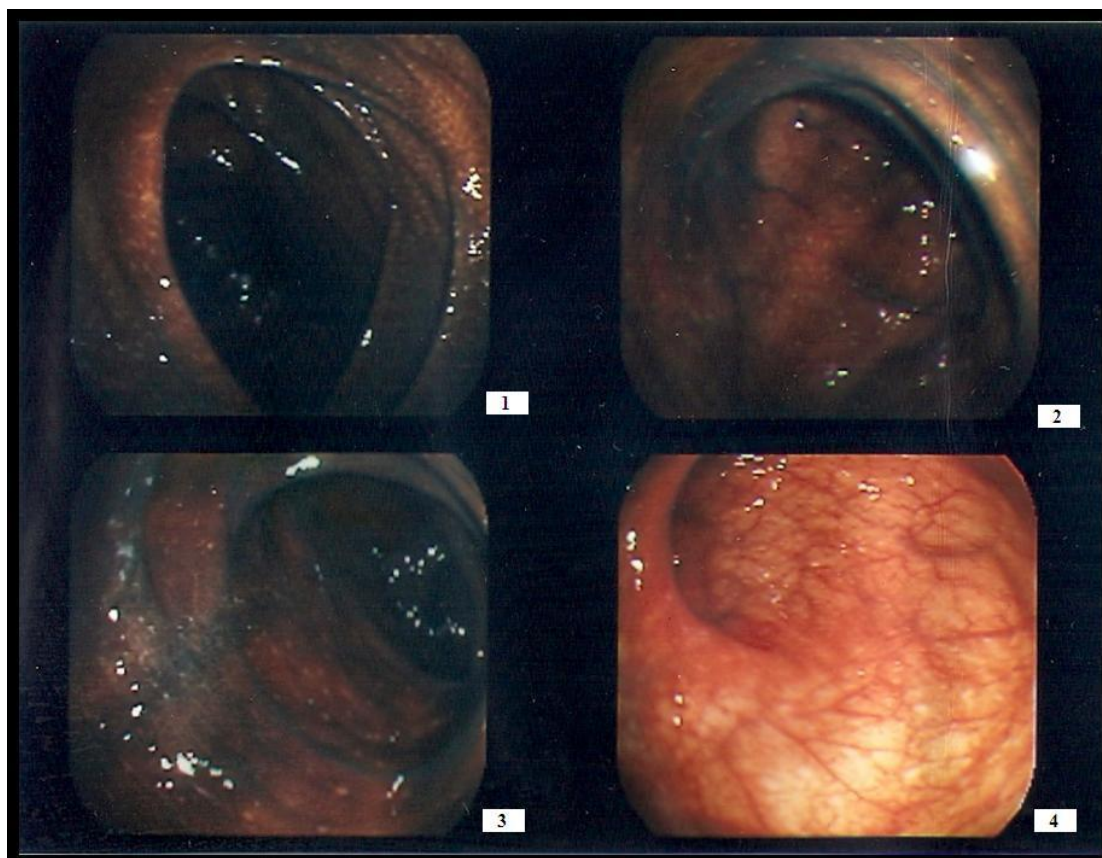


Figure 1: Colonoscopic aspect of the (1) cecum; (2) transverse colon; (3) descending colon and; (4) rectum.

RESUMO

MELANOSIS COLI ASSOCIADO À INGESTÃO DE CHÁS LAXATIVOS HERBAIS EM UMA MULHER DA AMAZONIA BRASILEIRA. RELATO DE CASO

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Objetivo: relatar um caso de melanosí colí macroscópica em uma mulher residente na Amazônia brasileira oriental, associado ao uso crônico de chás de ervas medicinais, 2008. **Relato do Caso:** mulher de 48 anos com queixa de dor abdominal difusa, meteorismo intestinal, plenitude gástrica, eructações e obstipação com fezes endurecidas e evacuação dolorosa. De antecedentes médicos pessoais, relatava uso prolongado de laxativos e chás de ervas medicinais. Ao exame físico, o abdome era plano, flácido, doloroso à palpação em topografia dos cólons. O exame colonoscópico mostrou mucosa de cólon escurecida difusamente compatível com melanosí colí. Orientou-se a paciente ao abandono de automedicação e uso de chás de ervas caseiras e instituiu-se tratamento com dieta rica em fibras, pró-cinéticos, lactulose, anti-fiséticos e programa de exercícios físicos. A paciente apresentou melhora importante dos sintomas e encontra-se atualmente em seguimento ambulatorial sem

queixas. **Considerações finais:** a melanosis coli é uma complicação rara que pode ocorrer em pacientes com obstipação intestinal que fazem o uso indiscriminado de laxativos, principalmente a base de antraquinona e chás de ervas medicinais.

DESCRITORES: Melanosis coli, chás de ervas medicinais.

REFERENCES

1. Samenius B. The clinical importance of melanosis coli. *Proc R Soc Med.* 1959; 52: 105-6.
2. Chaudhary BN, Sharma H, Nadeem M, Niayesh MH. Ischemic colitis or melanosis coli: a case report. *World J Emerg Surg.* 2007; 20 (2):25.
3. Willems M, Van Buuren HR, De Krijger R. Anthranoid self-medication causing rapid development of melanosis coli. *Neth J Med.* 2003; 61 (1): 22-4.
4. Iseki K, Ishikawa H, Suzuki T, Murakami T, Otani T, Ishiguro S. Melanosis coli associated with ingestion of bamboo leaf extract. *Gastrointest Endosc.* 1998; 47 (3): 305-7.
5. Erzurum V, Obermeyer R, Smaroff G, Mehta J. Soft-tissue images. Melanosis coli. *Can J Surg.* 2000;43(6):407-8.
6. Sosa JL, Cortes V, Zeppa R. Melanosis coli: a case report in a trauma patient and review of the literature. *Am Surg.* 1991;57(6):378-80.
7. Nusko G, Schneider B, Ernst H, Wittekind C, Hahn EG. Melanosis coli – a harmless pigmentation or a precancerous condition? *Z Gastroenterol.* 1997;35(5):313-8.
8. Walker NI, Bennett RE, Axelsen RA. Melanosis coli. A consequence of anthraquinone-induced apoptosis of colonic epithelial cells. *Am J Pathol.* 1988; 131 (3):465-76.
9. Langmead L, Rampton DS. Review article: herbal treatment in gastrointestinal and liver disease--benefits and dangers. *Aliment Pharmacol Ther.* 2001 Sep;15(9):1239-52.

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