

[ PICTURES IN CLINICAL MEDICINE ]

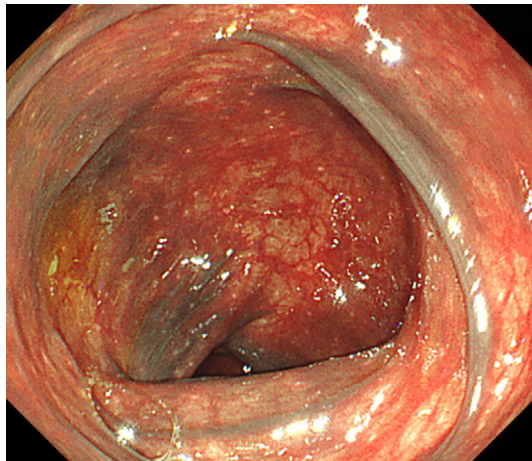
## Melanosis Coli Due to Aloe Vera Consumption

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**Key words:** colonoscopy, melanosis coli, aloe vera, anthraquinone-containing product

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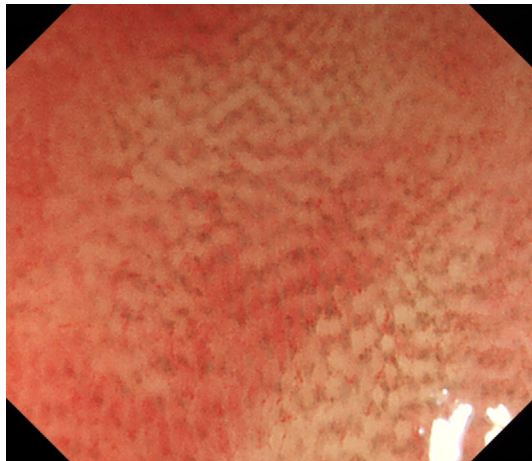
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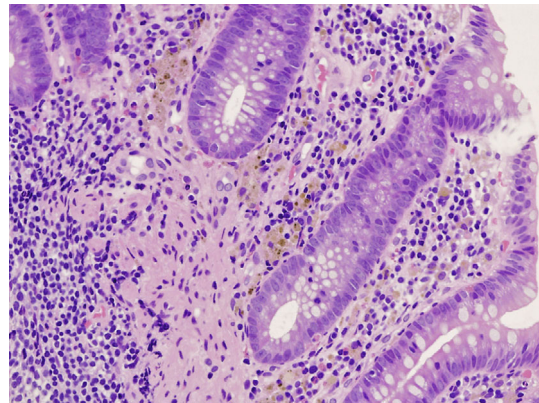
Picture 1.



Picture 2.



Picture 3.



Picture 4.

A 63-year-old Japanese man underwent colonoscopy for the investigation of right flank pain. He had been taking amlodipine. On colonoscopy, black pigmentation was observed

throughout the large intestine, i.e., cecum, colon (Picture 1, 2), and rectum. Magnifying observations revealed that the black color change existed in the intervening part of the intestinal mucosa (Picture 3). A histopathological examination revealed the deposition of a dark melanin-like pig-

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ment in the lamina propria (Picture 4). Although he initially denied having taken laxatives, the endoscopist suspected the intake of an anthraquinone-containing agent or food. Repeated interviews with the patient during the colonoscopy examination revealed the daily consumption of aloe vera powder for 2 years to promote regular bowel movements. Therefore, a diagnosis of melanosis coli due to aloe vera consumption was made for which no treatment was initiated. This case underscores the importance of careful history taking regarding the consumption of anthraquinone-containing products, beverages, and supplements, as well as laxative and herbal medicine use, in patients with discoloration of the colonic mucosa, because the long-term intake of anthraquinone-containing plant extracts of aloe vera, senna, and rhubarb can cause pigment deposition and discoloration of the colonic mucosa (1). Several studies have indicated a possible relationship between melanosis coli and a higher incidence and number of colonic non-adenoma polyps and low-grade adenomas (2, 3). Although this issue needs further investigation, the detection and follow-up of melanosis

coli, in combination with reducing the consumption of the causative agent, may be clinically important.

**The authors state that they have no Conflict of Interest (COI).**

## References

1. Li XA, Zhou Y, Zhou SX, et al. Histopathology of melanosis coli and determination of its associated genes by comparative analysis of expression microarrays. *Mol Med Rep* **12**: 5807-5815, 2015.
2. Wang S, Wang Z, Peng L, et al. Gender, age, and concomitant diseases of melanosis coli in China: a multicenter study of 6,090 cases. *PeerJ* **6**: e4483, 2018.
3. Liu ZH, Foo DCC, Law WL, et al. Melanosis coli: Harmless pigmentation? A case-control retrospective study of 657 cases. *PLoS One* **12**: e0186668, 2017.

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