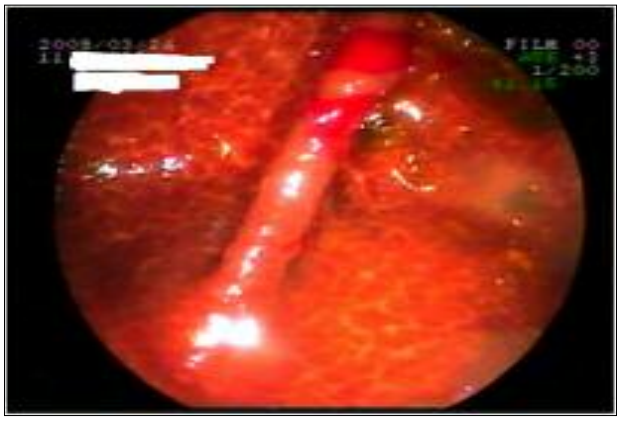
Melanosis coli: an unusual cause of exudative enteropathy

Since the first description by Cruveilhier in 1829 [1], melanosis coli has been found to be associated with constipation and use of laxatives. This condition is usually asymptomatic and the diagnosis is often made on incidental endoscopic or histological findings [2]. Severe hypoproteinemia due to enteric protein loss is rare unless accompanied by small bowel malabsorption syndrome. To the best of our knowledge, none case of melanosis coli associated with protein-losing enteropathy (PLE) in the absence of small bowel disease has been reported. We report a case of melanosis coli causing PLE without small bowel disease, in which PLE was diagnosed by 99m TC-labeled Human Serum Albumin (HSA) scintigraphy.

Case report

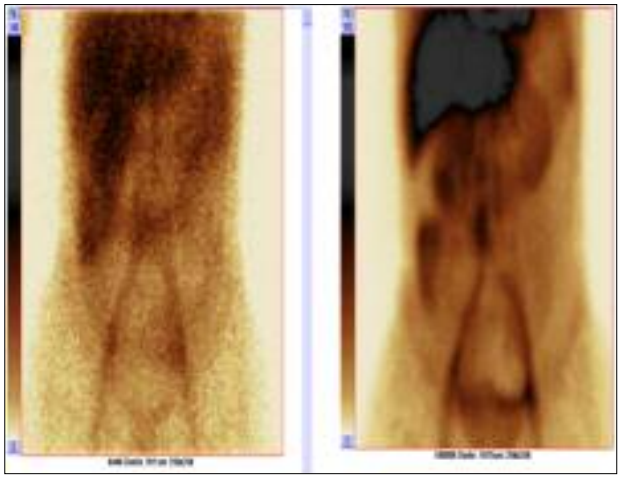
A 50 year-old woman was admitted to our department with generalized edema. She had a history of long standing constipation with chronic use of laxatives. On examination she was afebrile, with a blood pressure of 110/70 mm Hg and a heart rate of 76 beats/min. The face was swollen, and pretibial pitting edema was also present. No superficial lymph nodes were palpable. Laboratory investigations revealed severe hypoproteinemia: 35g/l (Normal ranges(NR):61- 81g/l); low serum albumin level: 17,2 g/l (NR: 43-51g/l); low serum gammaglobulin level: 3,5 g/l (NR: 6-11g/l); lymphopenia: 470 E/mm3 (NR: 1200-3400 E/mm3); high □1-antitrypsin clearance: 111,29 ml/24H (NR: 5-10 ml/24H); CRP: 3,45 mg/l (NR: <6mg/l); no abnormalities in liver and renal tests; normal results of urinalysis and no proteinuria; negative serologic testing for systemic autoimmune diseases; parasitological exploration of the feces was negative. Moreover, no steatorrhea was identified. Colonoscopic examination showed a dark pigmentation of the mucosa of the entire colon which was more prominent in the proximal colon than in the distal colon. It resembled reptilian skin, an appearance compatible with a diagnosis of melanosis coli (fig. 1).

Figure 1 : Endoscopic view of melanosis coli



Terminal ileum was normal. Biopsies confirmed an accumulation of lipofuscin pigment in macrophages of the lamina propria of the colon. Ileum biopsies were normal. Upper endoscopic examination and biopsies showed no obvious abnormalities in the stomach and the small intestine. The duodenum showed normal villi and no obvious lymphocyte infiltration. Small bowel barium study showed no abnormalities. Echocardiography and chest/abdominal computed tomography revealed no positive results. On 99mTC-labeled HAS scintigraphy, protein leakage has been detected throughout the ascending portion of the colon and the right colonic angle (fig. 2). On the basis of these findings, melanosis coli causing PLE was diagnosed. Laxatives were discontinued and despite the administration of human serum albumin, general condition remained unimproved and serum protein and albumin levels remained low. Then, the patient was deemed to be a candidate for right hemicolectomy but she refused and was lost from sight. Contacted by telephone eight months later, she said receive infusions of human albumin in another institution and that his condition is stable.

Figure 2 : 99m TC- labeled Human Serum Albumin scintigraphy shows leakage of the tracer in the right colon



In summary, we have reported a patient with melanosis coli who presented with PLE. Melanosis coli could be included in the etiological diagnosis of exudative enteropathy and an appropriate treatment should be established.

References

1. Cruveilhier J. Cancer avec melanose. In : Anatomie pathologique du corps humain. Paris : Baillier ; 1829.p.6.
2. Freeman HJ. Melanosis in the small and large intestine.World J Gastroenterol 2008; 14(27):4296-4299.

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