Intestinal spirochetosis and colon diverticulosis

Espiroquetose intestinal e diverticulose do cólon

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ABSTRACT
A case of intestinal spirochetosis in a 62-year-old white male is reported. The condition was characterized by chronic flatulence and episodes of intestinal hemorrhage, in addition to the evidence of hypotonic diverticular disease, with a large number of slender organisms in the colon epithelium and cryptae. Spirochetes were demonstrated by Whartin-Starry stain. The serologic tests for syphilis and HIV were positive. Spirochetosis was treated with penicillin G, and the patient remains free of intestinal complaints 20 months later.

Key-words: Colon. Diverticulosis. HIV. Intestinal bleeding. Spirochetosis.

CASE REPORT

A 62-year-old white male was seen on July 2002, with a chronic complaint of flatulence and episodes of intestinal hemorrhage that occurred only during evacuation. The patient used alcohol and tobacco occasionally, but denied drug abuse and there was no history of homosexuality. He was non-febrile and in a good general state. The heart was normal; pulse rate, 80 bpm; blood pressure, 140/80mmHg. The lungs, liver, arterial pulses, and lymph nodes were normal. The spleen was not palpable. A tender lower left abdominal quadrant was found during palpation. Stool examinations revealed no conventional pathogens. A full blood count and biochemistry determinations were normal. Proctologic examination disclosed hemorrhoids at 3 and 7 hours, without other changes on anuscopy. Colonoscopy showed pan-colon hypotonic diverticular disease, and biopsy samples were obtained from the colon. Histological examination of the colon biopsies showed mucosa surface covered with a large number of filamentous bacilli (Figure 1).
stained with silver-methenamine by Whartin-Starry method (Figure 2). Additionally, there were edema, moderate inflammatory infiltrate of lymphocytes and numerous eosinophils in the corium. After the histopathological data, the serologic tests for syphilis and HIV were positive. Spirochetosis was treated with penicillin G, and the patient is found free of intestinal complaints 20 months later.

Moreover, the study of biopsy allowed us to identify the infectious process and the spirochetes, which are not detected in the routine stool examinations. It is noteworthy that spirochetes are difficult to grow on culture media, which is an important limitation for their characterization in clinical practice. In addition to immunohistochemistry, the best way to identify spirochetes includes ultrastructural study and polymerase chain reaction, sophisticated tools are not easily available. In this context, the positive test for syphilis could constitute another index of suspicion for general practitioners. Based on clinical suspicion, the diagnosis of intestinal spirochetosis could be confirmed without additional costs, because spirochetes are easily identified through silver-methenamine stain. However, Orenstein and Dieterich (2001) found only four cases of spirochetosis in colon biopsies from 82 symptomatic patients with acquired immunodeficiency syndrome and conclude that treatable conditions may be overlooked by less experienced surgical pathologists.

Although we cannot discard the hypothesis that diverticulosis may favor the colonization of spirochetes, independently from the patient’s immune function, in this case the evidence of intestinal spirochetosis allowed the suspicion of concomitant HIV infection.

We suggest the inclusion of spirochetosis in the differential diagnosis of intestinal bleeding occurring in patients with or without changes at colonoscopy, and biopsy specimens could be obtained in order to favor the correct diagnosis in such cases.

REFERENCES


DISCUSSION

This patient presented with bright intestinal bleeding, similarly to several other reports. Although the exact source of bleeding could not be established through endoscopic examination, the colon diverticular disease could play a role in this case. The diagnosis of intestinal spirochetosis was established by the histologic study of colon biopsy.

In spite of the apparent response to penicillin G, with resolution of his symptoms, we could not entirely ascertain the absence of other eventual pathogens associated with HIV infection. Notwithstanding, the patient had no vomiting, abdominal pain, diarrhea, or loss of weight, the most frequent complaints were after intestinal opportunistic infections.