

## Terminal ileitis as a Form of Presentation of Disseminated Tuberculosis

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### Abstract

The ileitis terminal (IT) is defined as the presence of inflammation in the terminal ileum. There are multiple causes of IT, and it should be borne in mind that the presence of IT does not imply the existence of Crohn's disease (CD). It is therefore very important to make a good differential diagnosis so as not to induce mismanagement of the patient or delay in diagnosing the cause that motivates it.

**Keywords:** Tuberculosis; Terminal Ileitis; Crohn's Disease; Fever of Unknown Origin

### Introduction

The ileitis terminal (IT) is defined as the presence of inflammation in the terminal ileum.

### Clinical Case

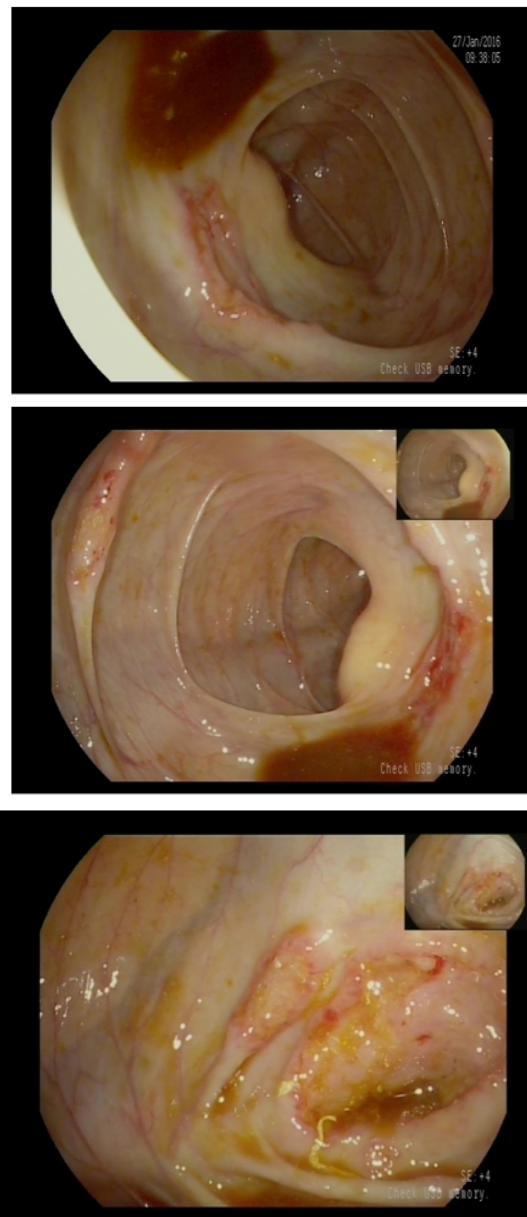
We present the case of a 52-year-old Caucasian woman who works as a warden in a hospital center. As the only personal history, he presents with migraine headache that occasionally treats with ibuprofen, without the habitual consumption of non-steroidal anti-inflammatory drugs. She was admitted to study intermittent fever of up to 40°C of approximately 1 month duration with associated weight loss without other symptoms. Study begins by abdominal ultrasound, tumor markers, blood cultures, stool cultures, Mantoux, HIV serology, *Yersinia*, *Campylobacter* and *Salmonella* virus serology addition, all resulting negative scans. A thoracic and abdominal computed tomography (CAT) scan was performed, revealing the same terminal ileitis and aneurysm of the thoracic aorta 5 cm in diameter previously unknown.

A study was started using cerebral angioresonance and transthoracic echocardiography to rule out vasculitis and aneurysm activity, in addition to autoantibodies that could justify the condition that led to admission, with negative results.

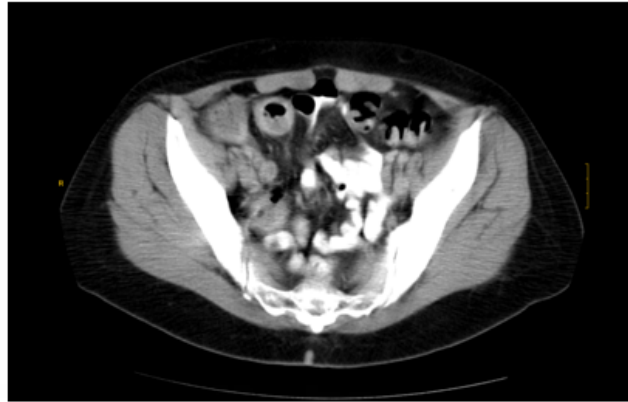
Colonoscopy was performed, observing large oval ulcers at the ileocecal valve level, with mamelonated edges and friable when taking samples. The sample is sent for preferential analysis, with a pathology report with cryptic microabscesses and wide ulcerative necrosis, being the diagnosis of ileal CD.

Given the diagnosis according to pathological anatomy, treatment is started with intravenous methylprednisolone at a dose of 60 mg daily, with worsening of the patient occurring in the following 24 hours with the development of severe hemicranial headache and diplo-

pia, in addition to dysarthria, for which urgent brain CT is requested, which is normal and lumbar puncture, being the cerebrospinal fluid compatible with tuberculous meningitis. Pathology is notified of this result so that a study of *Mycobacterium tuberculosis* in the sample is completed, demonstrating the finding of calcifying granuloma and acid-resistant bacilli. A thoracic CT scan was repeated, which revealed miliary involvement at the pulmonary level. The patient began treatment with quadruple anti-tuberculous therapy with good evolution in the first week and disappearance of the fever, in addition to improvement of the symptoms.



**Figure 1-3:** Images of ulcers of elongated morphology in the right and blind colon.



**Figure 4:** Ileal thickening on CT.

### Discussion

Although it is little cause frequented IT, tuberculous infection ranks sixth frequency in which lung involvement is concerned, it must be included in the differential diagnosis of the same, assuming in most cases a diagnostic challenge in January. Currently, there seems to be an increased incidence of this disease, due to immunosuppressive treatments, the human immunodeficiency virus and immigration [2]. In cases where there is active pulmonary tuberculosis, up to 25% of cases may have intestinal involvement. Intestinal involvement by *Mycobacterium tuberculosis* occurs after repeated intake of infected sputum, although it can also reach this region hematogenously or lymphatically. The ileocecal region, first and the jejunoileal region, second are the places with the highest frequency of involvement [3].

*Mycobacterium bovis* infection is a less frequent cause of intestinal tuberculosis. In this case, the infection would be produced by the direct ingestion of dairy products exempt from sanitary control, this being a rare cause in our environment.

The clinical manifestations can be totally nonspecific, the most frequent being weight loss, fever and chronic abdominal pain. Less frequently rectal bleeding, alteration of the intestinal habit or perforation appear [4,5].

Intestinal tuberculosis can mimic different conditions, so clinical suspicion is important to distinguish it from CD, since drugs that can improve CD can cause worsening of tuberculosis. Colonoscopy is the test of choice for evaluating mucosal lesions and taking samples. Some authors established comparisons between the endoscopic findings of both entities. Thus, in tuberculosis, it appears that the ulcers have irregular and nodular edges, and there may be sessile polypoid formations on the ulcerative edge that are difficult to detach with the taking of samples. In addition, in both entities, granulomas exist but in the case of tuberculosis they only appear in 30% of cases. On the other hand, identification in the *Mycobacterium tuberculosis* sample using Ziehl-Neelsen staining has low sensitivity and specificity, so if there is no clinical suspicion and these findings are not initially identified in the sample, the diagnosis may be difficult [2]. Culture is still the technique of choice in these cases, but the drawback is that it can delay diagnosis by 1 to 2 months. PCR in intestinal biopsies may be faster and although its sensitivity is low, 6 recent studies consider it as a highly specific diagnostic method for diagnosing this entity [7].

In most cases, once the diagnosis is established, the response to treatment is excellent and rare are the cases in which laparotomy is used for diagnosis. Surgery is reserved for complications such as hemorrhage, perforation or obstruction, these complications being typical of chronic disease [8].

### Conclusion

Our case is disseminated tuberculosis that initially manifested as IT, with a preliminary diagnosis of CD, however, from the beginning there were data that could lead us to think that it was tuberculosis, such as high fever and long evolution and the presence of oval ulcers on the ileocecal valve with a major axis perpendicular to the longitudinal axis of the colon. Treatment with corticosteroids was started after obtaining the result of Pathological Anatomy, causing the worsening of the patient in 24 hours, so in this case, we believe that treatment with said drug was not the cause of it and was the course of the own disease that started weeks before and so far had not received treatment. After performing a lumbar puncture, since the fluid was compatible with tuberculous meningitis, Ziehl-Neelsen staining was performed on the colonic biopsies and the diagnosis was obtained.

To point out that the patient has a profession of risk for the acquisition of tuberculosis disease and, in conclusion, to emphasize the importance of including in the differential diagnosis of fever of unknown origin of ileitis the possibility of intestinal tuberculosis.

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