



Literature Review

Bowel obstruction due to tuberculosis band: A case report and review of the literature

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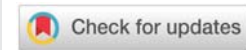
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Abstract

Peritoneal tuberculosis accounts for 0.1-0.7% of all tuberculosis patients, the clinical signs are non-specific apart from a complication; The incidence of intestinal obstruction due to tuberculosis bands from 12% to 60%. Tuberculosis can affect any part of the body, but the abdomen is one of the most common sites after the lungs, The clinical presentation of abdominal tuberculosis is usually nonspecific and, therefore, often leads to a delay in diagnosis and thus the development of complications such as intestinal obstruction, Imaging plays an important role in the positive diagnosis of the occlusion. We report the case of a 61-year-old patient with no particular pathological history admitted to the emergency room with a bowel obstruction syndrome which the surgical exploration found a bowel obstruction on a primary tuberculosis band.

Introduction

The peritoneum is one of the most common external localizations of pulmonary tuberculosis, which poses a public health problem in endemic regions of the world, the frequency of which is accentuated by the increase in immunosuppressive therapy and the AIDS epidemic. Peritoneal tuberculosis represents 0.1-0.7% of all tuberculosis patients [1]; The incidence of intestinal obstruction due to tuberculosis ranges from 12% to 60% [2] we report the case of a 61-year-old patient with no particular pathological history who was admitted to the emergency room with a bowel obstruction syndrome which the surgical exploration found a bowel obstruction on a primary tuberculosis band . the work has been reported in line with the SCARE 2020 criteria [3].

Patient and observation

This is a 64-year-old male patient with no particular pathological history admitted to the emergency room for a bowel obstruction syndrome including cessation of the emission of feces and gas, vomiting and abdominal pain associated with weight loss, asthenia and anorexia. The physical examination

revealed a conscious patient with hemodynamic and respiratory stability, BMI of 17 kg/m², slightly distended abdomen. Abdominal CT scan shows distension of a few small intestines measuring 4.9 cm, seat of NHA upstream of a transitional level located at the level of the tight iliac fossa following a primitive band (Figure 1).

The surgical procedure consisted by a section of a primary

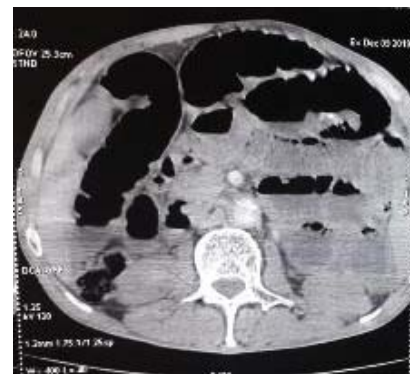


Figure 1: CT scan showing a bowel obstruction made by the tuberculosis band (arrow).

parietal band of the last iliac loop with millimetric granulation of the mesentery (Figure 2).

The postoperative follow-up was simple, the patient resumed his transit at day 2 postoperatively, a check-up in search of another tuberculous focus was requested which came back negative. The anatomopathological examination of the biopsies showed epithelioid cell granulomas with central caseous necrosis in relation with a peritoneal tuberculosis (figure 3)

Discussion

The incidence of peritoneal tuberculosis has increased worldwide due to the increase in immunocompromised patients and free immigrants, it accounts for 0.1 to 4% of all tuberculosis disease [4]. The incidence of intestinal obstruction due to tuberculosis ranges from 12 to 60%. Tuberculosis can involve any part of the body, but the abdomen is one of the most common sites of involvement after the lungs [5]. Modes of infection of peritoneal tuberculosis include hematogenous spread from a primary pulmonary focus that later reactivates or as a result of miliary tuberculosis, spread may be by lymphatic route from infected lymph nodes or by ingestion of bacilli either from sputum or from infected sources such as dairy products. The clinical presentation of abdominal tuberculosis is usually nonspecific and, therefore, often leads to a delay in diagnosis and thus to the development of complications such as intestinal obstruction [7]. The tuberculin skin test is difficult to interpret and its sensitivity varies between 14 and 100%. Their sensitivity varies from 40% in peritoneal forms to 100%

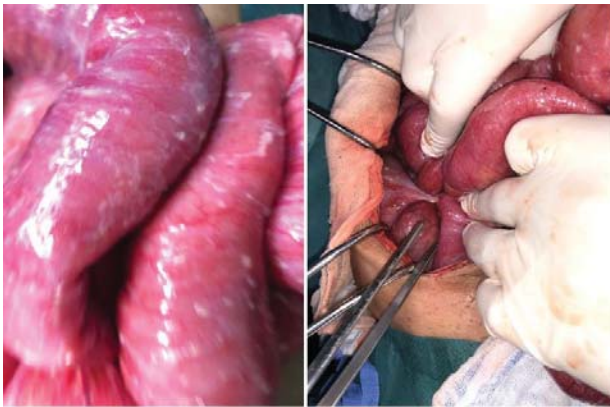


Figure 2: Per operative image showing a bowel obstruction made by a tuberculosis band located in the right iliac fossa with granulation on the small intestine.

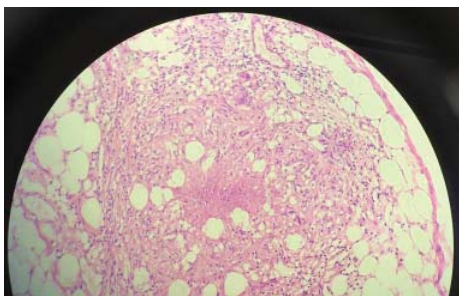


Figure 3: Histological image showing epithelioid cell granulomas with central caseous necrosis in relation to peritoneal tuberculosis.

in intestinal forms, with an overall specificity of around 80% [8]. In the case of occlusion, CT scan can confirm the diagnosis, the site with a sensitivity of 94% to 100% and a specificity of 90% to 95%, as well as the search for signs of complication, in particular signs of ischemia [9]. Surgical treatment is the cornerstone of the management of mechanical bowel obstruction. The laparoscopic approach has proven to be safe and feasible, especially when it is a single band and the bowel is not very distended. Conversion to laparotomy is indicated in the following cases non-viable bowel identified by laparoscopy and in case of inability to identify the site of obstruction. Treatment consists of section of the band and, if necessary, resection of the small necrotic loop [10]. Surgical treatment is associated with anti-bacillary chemotherapy is the same as that of the national tuberculosis control program. This patient was treated according to protocol 2 RHZ/4RH; the duration of treatment was six months with a favorable evolution [2].

Conclusion

Abdominal tuberculosis is the most frequent site of extra pulmonary tuberculosis, its incidence is accentuated given the increased administration of immunosuppressants as well as the increase in the incidence of immune deficiency, it can be revealed by a mechanical occlusion, particularly on a flange, requiring in addition to the medical treatment an emergency surgical intervention. We report the case of a 61-year-old patient with no particular pathological history who was admitted to the emergency room with a bowel obstruction syndrome which the surgical exploration found a bowel obstruction on a primary tuberculosis band.

Authors' contributions

This work was carried out in collaboration among all authors. All authors contributed to the

conduct of this work. They also declare that they have read and approved the final version of the manuscript.

Consent

Written informed consent was obtained from the patient for publication of this case report and accompanying images. A copy of the written consent is available for review by the Editor-in-Chief of this journal on request.

Ethical approval

As per international standard written ethical approval has been collected and preserved by the author(s).

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