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Case Report

Intestinal Tuberculosis Revealed by Lower Gastrointestinal Bleeding

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Abstract

Tuberculosis is a common infectious disease on a global scale. Abdominal tuberculosis encompasses several parts of the digestive tract. We report the observation of a 16-year-old patient who presented with intestinal tuberculosis revealed by lower digestive hemorrhage. Abdominal computed tomography showed extravasation of the contrast agent in arterial and portal phase at the level of a jejunal loop. In view of hemodynamic instability, the patient is admitted to the operating room. An ileo-coecal resection with transverse-ileo end-to-end anastomosis was performed. The operative consequences were simple. After having the histological test, the patient was put on anti-tuberculosis treatment according to WHO protocol.

Keywords: Gastrointestinal haemorrhage; Intestinal tuberculosis; Laparotomy

Introduction

Tuberculosis is a common infectious disease on a global scale. This disease is a public health problem, not only in developing countries, but also in industrialized countries. Tuberculosis has been a reportable disease since 1964 and its control is a priority of the World Health Organization. In Morocco during the year 2015, a total of 30,636 cases of tuberculosis, of all forms (28,955 new cases and 1,681 cases of relapses) [1], were notified, an incidence of 89 cases per 100,000 inhabitants. Tuberculosis deaths were 656 cases. Abdominal tuberculosis encompasses tuberculosis of the gastrointestinal tract, peritoneum, omentum, and other solid intra-abdominal organs such as the liver, spleen, and pancreas. This condition remains a topical problem given its high frequency in developing countries and its resurgence in industrialized countries. This is partly related to the advent and spread of acquired Immunodeficiency Syndrome (HIV) [2]. The objective of our work is to report a case of intestinal tuberculosis revealed by low digestive hemorrhage collected in the Department of Visceral Surgery II at the Military Instruction Hospital Mohamed V.

Observation

It is a 16 years old patient with no medical and surgical history admitted through emergencies for hemodynamic shock, occurring during the course of low digestive hemorrhage, associating high-abundance rectal bleeding and melaena, diffuse abdominal pain And diarrhea. Clinical examination demonstrated a conscious patient with a conserved general condition, hemodynamically unstable TA = 7mmhg max, pulse rate, Fc = 128bpm, t ° = 37.5, mucocutaneous pallor, abundant sweating. Abdominal examination finds a painful, defenseless, no abdominal tumor, no hepatomegaly or splenomegaly. The rectal examination perceived no mass, but returned stained with blackish blood. The rest of the examination was normal. The biological examination found an anemia (hemoglobin at 6 g / dl) isolated. Colonoscopy performed urgently but difficult view the abundance of bleeding. The upper digestive fibroscopy revealed no abnormalities. Abdominal CT performed urgently before and after injection of contrast agent in arterial and portal time, demonstrated an extravasation of the contrast product at the level of a jejunal loop in arterial and portal time testifying to an active digestive haemorrhage associated with a Moderate and focal thickening of the last ileal loop, multiple necrotic mesenteric adenopathies and minimal peritoneal effusion (Figures 1-3).

Figure 1: extravasation of the contrast product at the level of a jejunal loop in arterial and portal phase testifying to an active digestive haemorrhage.

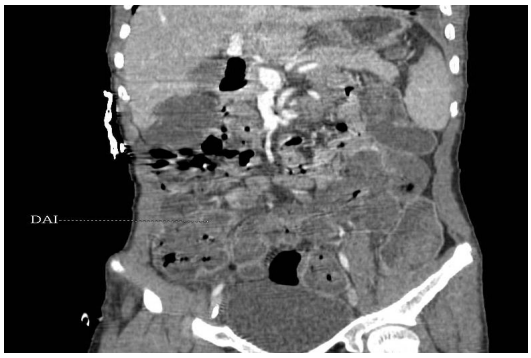

Figure 2: Moderate and focal thickening of the last ileal loop.

Figure 3: multiple necrotic mesenteric lymphadénopathy and minimal peritoneal effusion.

In view of the importance of haemorrhage and the instability of the hemodynamic state, the patient is admitted to the operating room for surgical management. Upper and lower umbilical explorations found three pseudo-tumor lesions on the ileum with multiple adenopathies on the mesentery, hence the decision to perform an ileo-coecal resection taking the three lesions with an transverse-ileo terminus of the ileum, Lateral, operative piece sent for pathological study (Figure 4). The postoperative sequences were simple and the patient left the service on day 6. The anatomopathological study confirms that macroscopically, three ulcerated lesions located at a distance from the limits of lateral resection, at the cutting of the ganglia are almost all the seat of a friable whitish necrosis of tuberculoid aspect, Histologically, the three lesions described above involved an exulcerated ileal mucosa replaced by a fibrin-leukocyte coating. Below, there is the presence of a large granulomatous inflammatory reaction made up of epithelioid follicles of variable size, traversed by multiple multinucleated giant cells. The majority of these granulomas are centered with a cracked eosinophilic necrosis of caseous appearance. It should be noted that the caecal mucosa and the appendix are of normal morphology (Figures 5-7). HIV serology was negative and the postoperative finding for another location (pulmonary and / or extra pulmonary) was negative. The patient was referred to the pulmonology department for acceptation. An anti-tuberculosis treatment was prescribed for 6 months according to the OMS protocol.

Figure 4: Surgical view showing three pseudo-tumor lesions on the ileum with multiple adenopathies on the mesentery.

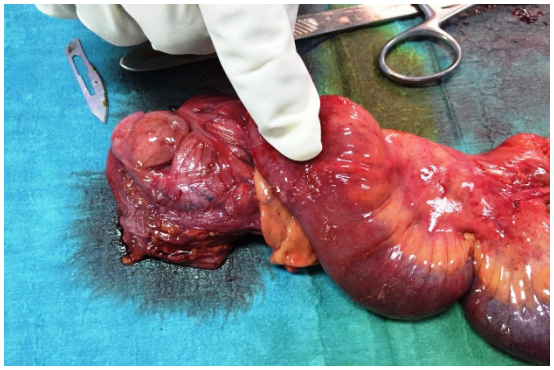

Figure 5: Ileal mucosa reworked by granulomatous inflammatory process. (HE, Gx50).

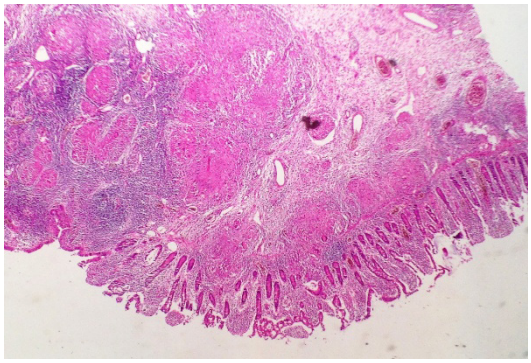

Figure 6: This process is made of epithelioid and gigantocellular follicles of variable size. (HE, Gx200).

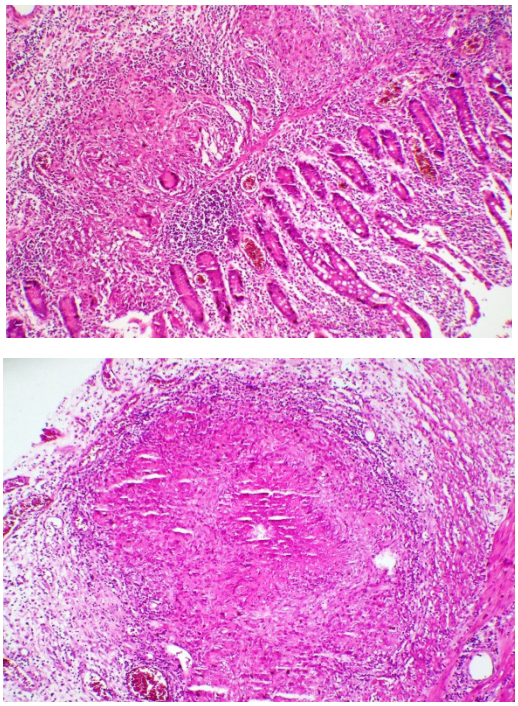

Figure 7: Some granulomas are centered with caseous necrosis. (HE, Gx400).

Discussion

The incidence of tuberculosis infection has re-ascended not only in developing countries but also in developed countries. This is partly explained by infection with acquired Immunodeficiency Virus (HIV), precariousness and immigration [3]. This has resulted in an increase in the incidence of extrapulmonary sites, which account for almost 1/3 of reported cases of tuberculosis in Morocco [4]. Abdominal localization is a relatively frequent extrapulmonary form, accounting for 5 to 10% of all localizations [5]. This frequency is greater and could double to triple in HIV-positive people. It was estimated at 13.5% in a study of 199 HIV-positive patients [5]. Gastrointestinal tuberculosis can affect the whole digestive tract with variable frequencies. The ileo-coecal intersection is the preferred site of intestinal tuberculosis (80% of cases). Other abdominal sites include colon, jejunum, ganglia, peritoneum, liver and spleen. In our patient the three lesions sit on the ileal level. Digestive impairment may be primary by direct ingestion of mycobacterium or secondary to very bacilliform lung lesions by hematogenous or lymphatic route [6]. The bacterial agent is most often the human koch bacillus, exceptionally it is the atypical mycobacteria in the immunocompromised subjects [6]. The pseudo-tumor hypertrophic form is most often primitive [7], this form affects the young adult between 20 and 40 years [8]. In our observation the patient was 16 years old.

The most common symptoms are abdominal pain (90%) and slimming (65% -75%); Fever and diarrhea are rarer (respectively 35-50 and 25-50%) [9]. The physical examination finds an abdominal mass in 25 to 58% of the cases, typically in the right iliac fossa, and ascites (signing the peritoneal involvement) in 10% of the cases. The symptomatology may vary according to the segment reached [10]. The initial picture can be that of a complication [11,12], the most frequent being occlusion, and more exceptionally, perforation or fistulization. Massive gastrointestinal haemorrhage and malabsorption syndrome have also been described. The clinical signs observed vary according to the location of the disease. This is the case for our patient who presented a massive lower digestive hemorrhage with alteration of the general state. Additional examinations are of limited use unless there is a strong suspicion of diagnosis. Unexplained x-rays of the abdomen in subocclusive or occlusive syndromes only confirm the existence of an obstacle. Radiologically, three forms have been classically described, in particular barium enema: the ulcerative form, the ulceroprotrophic form and the hypertrophic form [13-16]. Barium enema, especially when performed in dual contrast (baryta-air), is useful for defining the affections of the colonic mucosa [17]. However, with the diffusion of colonoscopy, which offers the possibility of seeing the mucosal lesions directly and at the same time making biopsy specimens, the indications for the barium enema have been reduced [17].

The discovery of intestinal tuberculosis is increasingly taking place with cutting-edge imaging methods such as ultrasound and CT, which are a decisive step in the management [17,18]. The ultrasonic signs usually described in intestinal tuberculosis are the thickening and edema of the digestive wall, the loss of intestinal mobility and the dilation of the bands [18,19]. Scanning is better than ultrasound in the diagnosis of pseudo-tumor forms of abdominal tuberculosis [19]. In addition to ultrasound, it is an excellent technique for the overall study of the digestive tract (stomach, hail, colon), light, wall and peri-digestive fat [20]. On the CT scan, tuberculous involvement can take several forms: it may be manifested by hypertrophic digestive parietal involvement with peritoneal nodules and a cluster of deep adenopathies or, on the contrary, by localized, irregular, excentric hypertrophic infiltration with extraluminal development, Typically pseudo-tumor; In this second form we must fear a neoplasia [19,21]. On the CT scan, the association of certain signs provides a strong diagnostic presumption: it is the presence of ascites, adenopathies, ileo-coecal concentric parietal thickening and / or the last ileal loops, peritoneal thickening with calcification) [22]. Faced with a highly suggestive aspect of imaging, an etiological check-up should be initiated to detect other sites that can support the diagnosis. If doubt persists a guided puncture under ultrasound or CT scan with histological study would make the diagnosis [20].

Ultimately, if clinical urgency and symptomatology allow them to be performed safely, endoscopic examinations are the most useful. Histopathologically, four macroscopic forms are described: ulcerative, hypertrophic, ulcero-hypertrophic and stenosing [23,24]. Microscopic lesions are of several types. In the initial stage of inflammation, non-specific exudative lesions, rich in lymphocytes and macrophagetic histiocytic cells, appear. This phase is very fleeting and is only observed in certain very rapidly developing very severe tuberculosis [25]. At a later stage, a tuberculous necrosis peculiar to tuberculosis is added which results, on the one hand, from the avascular nature of the inflammatory nodule and, on the other hand, from the complex reactions between the germ and the tissues. This necrosis can be minimal and go unnoticed during the histological study. The tissue defense reaction against these destructive attacks is manifested by the appearance of follicular lesions around the casein, formed by giant and lymphocytic epithelial cells. When all the elements of the case follicular lesion are combined, their tuberculous nature is practically certain [25]. In our case, it is a granulomatous inflammatory process with caseous necrosis involving the ileal mucosa and the meso ganglia, which is compatible first with a tuberculous origin.

More recently, the search for BK by Polymerase Chain Reaction (PCR) on biopsies provides high diagnostic sensitivity (75-80%) and high specificity (85-95%) [26]. Surgical treatment is not standardized and depends first on the reason for the surgical indication. Thus, the removal of one or more obstacles in case of occlusion or a hemostasis procedure in case of massive hemorrhage will usually make resection necessary. It also depends, above all, on lesions observed during surgical exploration and which most often involve intestinal resections with or without restoration of continuity or internal derivations or ostomies. The choice of a resection must always take into account the extent of the resection. If it were to be too large, especially at the ileum, stomas should be preferred, relying on antituberculosis treatment to reduce the extent of secondary resection that would be needed [27].

Conclusion

Intestinal tuberculosis, which remains increasingly common in endemic countries like ours, is a major diagnostic problem, particularly with cancer. This often justifies the use of laparotomy whenever there is a diagnosis or a complication.

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