Small Bowel Obstruction by a Primary Flange on Mesenteric Ganglionic Tuberculosis: A Case Report

ABSTRACT

Tuberculosis remains a global public health issue. Lymph node tuberculosis is one of the most common extrapulmonary manifestations of tuberculosis, Mesenteric lymph node tuberculosis is rare and difficult to treat. It is revealed by intestinal obstruction in 20-27% of cases .
Knowing how to evoke the diagnosis of tuberculosis is the indispensable condition for rapid and adapted management. The surgical treatment is not standardized and depends primarily on the reason for the surgical indication.
We present a rare case of a Small bowel obstruction by a Primary flange on mesenteric ganglionic tuberculosis, who benefited from a surgical cure.

Keywords: Tuberculosis; flange; small bowel; mesenteric ganglionic.

1. INTRODUCTION

"Tuberculosis has recently resurged as a worldwide public health concern in spite of the recent advances in its diagnosis and management" [1]. "This is thought to be because of the poor hygiene conditions, the greater prevalence of acquired immune deficiency syndrome (AIDS) and depression of the immune system" [2]. "Tuberculosis is an infectious disease caused by Mycobacterium tuberculosis, an acid-fast bacillus that is transmitted primarily through the respiratory tract and undergoes lymphohematogenous dissemination" [1].

"Atypical extrapulmonary presentations of this infection may significantly delay its diagnosis and management. *Tuberculous lymphadenitis* (TL) is an extrapulmonary manifestation of a Mycobacterium tuberculosis infection. It is characterized by necrotizing mycobacterial infection of the lymph nodes. The clinical presentation of this disease ranges from fever and malaise to cervical lymphadenopathy and fistula formation. The purpose of this study is to acquaint physicians to identify this disease in a timely manner" [3,4].

We report the case of intestinal occlusion caused by primary flange of mesenteric ganglionic tuberculosis.

2. CASE PRESENTRATION

We report the case of a 37 year old male patient, with history of HIV under treatment, was admitted in our emergency department with acute abdominal pain, vomiting and an occlusive syndrome.

The clinical examination found a patient in good general condition, with no disorder of the hemodynamic state ; TA : 110/60 mmHg Fc: 64 bpm, saturation: 98%,The abdominal examination found a distended painful abdomen.And a normal laboratory findings.

A CT scan imaging revealed an obstruction of the small bowel on primitive flange, this diagnosis has been retained because the patient has no surgical history.

The patient has been conditioned with a nasogastric tube during 24 hours with no improvement. So a surgical treatment was planned under general anesthesia in the emergency operating room.

The surgical exploration found an obstruction of the small bowel on a flange between the ileum and a mesenteric adenopathy, the flange has been cut with the scissors and the node has been removed.

The patient recovered well and left the hospital in the fifth day.

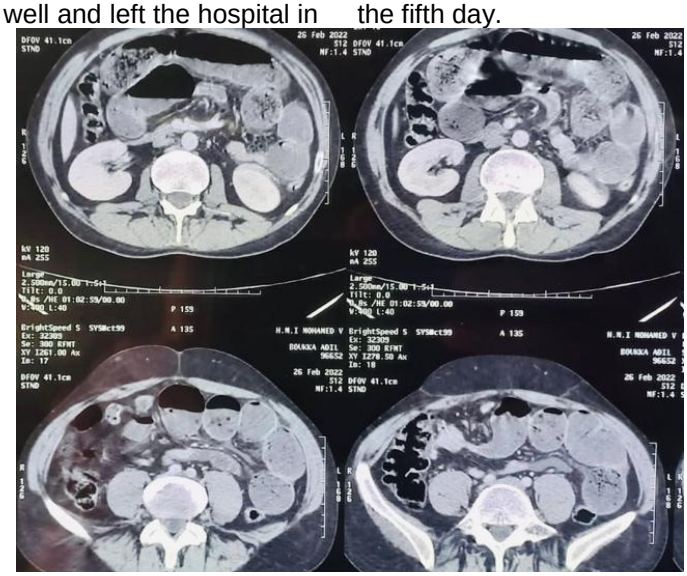

Fig. 1. CT-scan imaging showing an obstruction of the small bowel

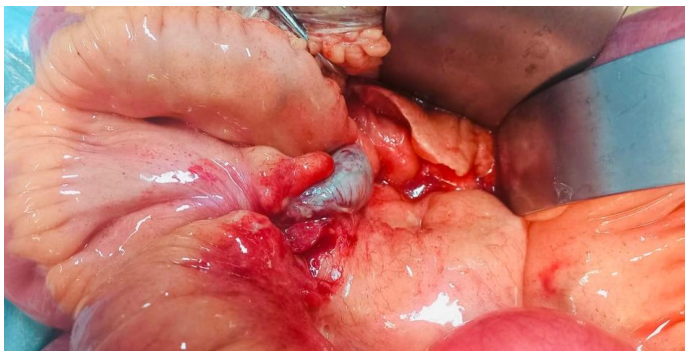

Fig. 2. Operatory imaging showing a mesenteric adenopathy

Fig. 3. Surgical photo showing the flange between the ileum and a mesenteric adenopathy

Fig. 4. Mesenteric node after removing

3. DISCUSSION

Tuberculosis remains a global public health issue. According to the World Health Organization (WHO) in 2016, 10.4 million people contracted it with 1.7 million deaths [5].

It is due to Mycobacterium tuberculosis. 14% of tuberculosis cases reported worldwide are extrapulmonary [6]. Gastrointestinal involvement accounts for 3 to 5% of all visceral locations. It is revealed by intestinal obstruction in 20-27% of cases [7].

“In Morocco, 26,000 to 27,000 new cases of all forms of tuberculosis are detected annually. Extrapulmonary TB accounts for 46% of TB cases and is dominated by lymph node and pleural involvement, which accounts for 70% of extrapulmonary forms” [8]. Lymph node tuberculosis is a relatively common form of extrapulmonary disease, and is essentially a therapeutic challenge.

“The incidence of TB infection has risen not only in developing countries but also in developed countries. This is partly explained by acquired immunodeficiency virus (HIV) infection, precariousness and immigration” [10]. “This has led to an increase in the incidence of extrapulmonary localizations, which account for nearly 1/3 of the tuberculosis cases reported in Morocco” [9]. “Abdominal localization is a relatively common extrapulmonary form, accounting for 5-10% of all localizations” [11]. This frequency is higher and could double to triple in HIV-positive subjects.

“Digestive involvement may be primary by direct ingestion of mycobacterium or secondary to highly bacilliferous pulmonary lesions by haematogenic or lymphatic route” [12]. “The bacterial agent is usually the bovine or human Kokh bacillus, exceptionally atypical mycobacteria in immunocompromised subjects” [12].

TB infection can also be of interest to any other segment of the digestive tract. It is often represented by agglutinated loops, hypertrophic digestive parietal infiltration with peritoneal nodules, and a cluster of deep lymphadenopathy including mesenteric. But this aspect may be lacking, and before an irregular hypertrophic off-centered digestive infiltration, a tumor origin is often evoked [13]. Lymph node localization in intra-abdominal tuberculosis may also be the cause of the pseudo-tumoral appearance.

“Ultimately, if the urgency and clinical symptomatology allow them to be performed safely, endoscopic examinations are the most useful” [14]. Indeed, the contribution of endoscopy is essential, it allows the detection of lesions, even the most superficial [15,16]. Its main interest is that it allows the realization of biopsies with histological and bacteriological studies (culture) and then avoids morbidity and mortality related to an exploratory laparotomy [17,18].

Knowing how to evoke the diagnosis of tuberculosis is the indispensable condition for rapid and adapted management, because the vital prognosis is at stake [13]. Laparotomy is sometimes the only recourse in case of negativity of the echo or scano-guided puncture [13]. Indeed, 20 to 40% of patients [19] will have a laparotomy, either in emergency before a complication (stenosis, occlusion, compressive mass, flattening of certain casein cavities, perforation and fistula), or for diagnostic purposes.

This surgical treatment must be combined with TB treatment. The surgical treatment is not standardized and depends primarily on the reason for the surgical indication. Thus, the removal of one or more obstacles in case of occlusion or a hemostasis process in case of massive bleeding will usually make a resection necessary. It also depends and especially on the lesions observed during the surgical exploration, which most often involve intestinal resections with or without restoration of continuity or internal bypass or stoma [20].

4. CONCLUSION

The diagnosis of intestinal tuberculosis is difficult; Knowing how to evoke the diagnosis of tuberculosis is the indispensable condition for a rapid and adapted management, because the vital prognosis is at stake.

CONSENT

As per international standard or university standard, patient(s) written consent has been collected and preserved by the author(s).

ETHICAL APPROVAL

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

COMPETING INTERESTS

Authors have declared that no competing interests exist.

REFERENCES

1. 1.WHO.Global tuberculosis control: surveillance, planning, financing. WHO report 2007 (WHO/HTM/TB/ 2007.376).
2. Miziara ID. Tuberculosis affecting the oral cavity inBrazilian HIV-infected patients. Oral Surg Oral MedOral Pathol Oral Radiol Endod. 2005;100:179-182.
3. Jha BC, Dass A, Nagarkar NM, et al. Cervicaltuberculous lymphadenopathy: Changing clinicalpattern and concepts in management. Postgrad Med J.2001;77: 185-187.
4. Acute Mesenteric Tuberculous Lymphadenitis: A Comparative Analysis of Twenty-one Cases Monitoring Editor: Alexander Muacevic and John R Adler Asif Mehmood, 1 Amna Ehsan,2 Maryam Mukhtar,2 Faisal Inayat,3 and Waqas Ullah4
5. WHO. Global tuberculosis report 2017. Accessed November 20 2018.
6. WHO. Treatment of tuberculosis: guidelines. 4th ed. Genève: 2010.
7. Chaabane NB, Mansour WB, Hellara O, Melki W, Loghmeri H, Bdioui F, et al. La tuberculose gastro-intestinale. Hépato Gastro. 2012;19(1):28–35.
8. Royaume du Maroc Ministère de la Santé Direction de l'Epidémiologie et de lutte contre les maladies. Programme national de lutte anti tuberculeuse - Edition Avril 2011.
9. Denis-Delperre N, Merrien D, Billaud E, et al. Tuberculose extra-pulmonaire dans la région du centre-ouest: Étude rétrospective de 217 cas (GERICCO 199161993) Presse Med. 1998 Feb 28;27(8):341–6.
10. Ismaïli Z, Amraoui M, Mansouri F, Essamri W, Benazzouz M, Essaïd EA. Tuberculose colique pseudo-tumorale à double localisation. Médecine du Maghreb. 2006;142:5–8.
11. Romand F, Gaudin JL, Bobinchon R, Souquet JC. Tuberculose abdominale d'allure pseudo tumorale. Presse Med. 1997;26(36):1717–21.
12. De Jesus LE, Marques AM, Rocha MS, et al. Left colon stenosis caused by tuberculosis. J Pediatr Surg. 2004;39: e5–e7.
13. Romand F, Gaudin JL, Bobinchon R, Souquet JC. Tuberculose abdominale d'allure pseudo tumorale. Presse Med. 1997;26(36):1717–21.
14. Martinez Tirado P, Loez De Hierro Ruiz M, Martinez Garcia R, Martinez Cara JG,

Martin Rodriguez MM, Castilla castellano MM. Intestinal tuberculosis A diagnostic challenge. Gastroenterol Hepatol. 2004;27: 43–4.
15. Misra SP, Misra V, Dwivedi M, Gupta SC. Colonic tuberculosis: clinical features, endoscopic appearance and management. J Gastroenterol Hepatol. 1999;14(7):723–9.
16. Isaacs P, Zissis M. Colonic tuberculosis and adenocarcinoma: an unusual presentation. Eur J Gastroenterol Hepatol. 1997 Sep;9(9):913–5.
17. Florent C, Rambaud JC. Traité de gastro-entérologie. Tuberculose digestive. 2000:983–7
18. Kacem C, Kamoun A, Bahout M, Zermani R, Najjar T. Colonic tuberculosis: an exceptional cause of a massive surgical hemorrhage a propos of a case and review of the literature. Tunis Med. 1999;77(10): 530–3.
19. Badre W, et Coll Tuberculose digestive pseudo-tumorale. Magh Med. 2002;22(363):208–11.
20. Nguyen Duc C, Pha Hai B, Pham Van T, Ton That B, Huguier M. Tuberculoses compliquées du tube digestif. Annales de chirurgie. 2006;131:306–10.