

Peritoneal Tuberculosis Revealed by Umbilical Fistula, Case Report

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Abstract

Case Report

Umbilical fistula following peritoneal tuberculosis is rare in children. Few cases of umbilical or parietal fistulas have been described in children and adults occurring in the context of peritoneal tuberculosis. This is a report about a case of abdominal tuberculosis revealed by an umbilical fistula treated in pediatric surgical emergency department of Rabat. This is a 13-year-old girl with a family history of pulmonary tuberculosis. She consulted for abdominal pain associated with umbilical discharge. Symptoms had evolving for 2 years. She benefited a treatment by antibiotics on suspected umbilical abscess without improvement. Abdominal CT scan noted collection under the umbilical attached to a digestive structure fistulized in the skin suggesting abscess or umbilical fistula and multiple calcified peritoneal granulations. All laboratory tests in search of tuberculosis were negative. Exploratory laparotomy was done by trans-umbilical approach and discovered a parietal retro-umbilical mass extending to the pelvic level above the bladder which was resected. The expert discomfort and biopsy result was positive for tuberculosis, and anti-tuberculosis treatment marked good improvement.

Keywords: Abdominal Tuberculosis, Umbilical Fistula, Peritoneal Tuberculosis.

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INTRODUCTION

Umbilical discharge has a limited number of causes, which are easily recognized and treated. Acquired causes (mainly infections) usually present with a serous or purulent discharge. Leakage through an umbilical fistula associated with abdominal tuberculosis is rare and difficult to diagnose. Age of onset, type of discharge, associated symptoms, local examination and radiological investigations usually allow the diagnosis to be made. We report a case of abdominal tuberculosis revealed by an umbilical fistula treated in pediatric surgical emergency department of Rabat.

Our objective is to suggest a search for tuberculosis in case of any umbilical discharge and pay particular attention when establishing an etiological diagnosis for an umbilical fistula in children, especially in areas endemic for tuberculosis.

OBSERVATION

This is a 13-year-old girl with a family history of pulmonary tuberculosis treated and cured (his uncle and his grandmother had pulmonary tuberculosis two years before the start of his symptoms). She has no history of chronic pathology or known immune disorders. She had several hospitalizations for suspected

abscess with umbilical fistula. She consulted for abdominal pain associated with umbilical discharge (figure 1). Symptoms had been evolving for 2 years with abdominal pain, without any associated signs except unquantified weight loss. On the initial clinical examination, the child had and hypogastric peri abdominal pain, with a generalized sensitivity, an abdominal mass hard to palpation, mobile, painful, located at the umbilical level, and an umbilical flow of liquid (figure 1) purulent, sometimes fecaloid, which made a digestive fistula suspect. No associated general signs, the temperature was normal, the appetite was kept, but there is an unquantified weight loss. In the previous two years, the child has consulted for abdominal pain in pediatrics, which have settled progressive, without fever. Biological examinations looking for tuberculosis were carried out, which was negative. She had no umbilical flow to this period. Symptomatic treatment was administered, and a slight improvement was obtained but without remission of pain. The following year, redness and umbilical tumor appeared, and the child consulted in pediatric surgery. At this period, an ultrasound made objectified a collection under umbilical for which a drainage was carried out. A cyto-bacteriological examination carried out on the drainage fluid has not highlighted germs, nor a backpack of Koch, and the child treated as an abscess under umbilical by antibiotics but

without improvement, and persistence of flow at the umbilicus. Faced with the lack of clinical improvement, the persistence of umbilical flow and abdominal pain, parents consulted in our pediatric surgical emergency



Fig 1: umbilical fistula with fecaloid discharge

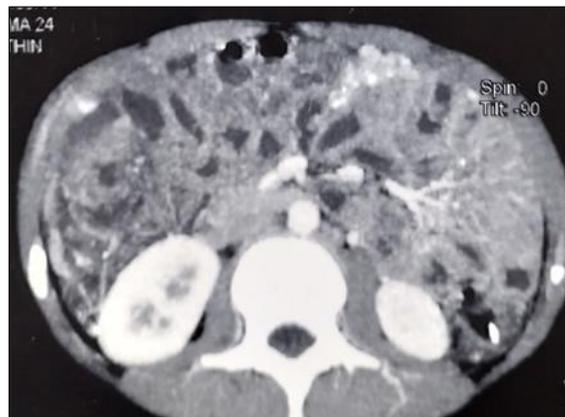


Fig. 2: Image of calcified abdominal granulation

The patient was admitted to operating room, mini-laparotomy was done by trans-umbilical approach and discovered a parietal retro-umbilical mass extending to the pelvic level above the bladder which was resected.

Exploration of abdominal cavity found several caseous granulations (figure 3), taking samples for biopsy and expert discomfort.

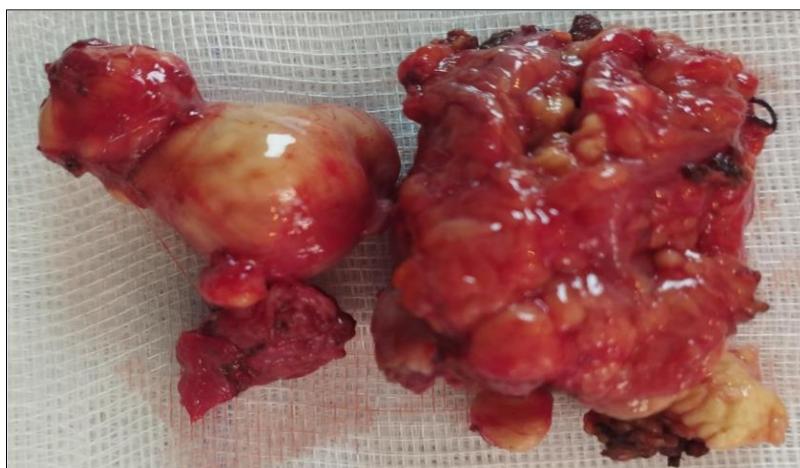


Fig. 3: lymph nodes with caseous content discovered in sub-umbilical and at the peritoneal level taken for histopathological study

After confirmation of tuberculosis by the expert gene test, histological analysis of the specimen also confirmed the presence of epithelioid and giant-cellular cells with areas of caseous necrosis. Anti-tuberculosis treatment was started immediately with good success. After a year of follow-up, the child is doing well and has not had another attack of abdominal pain or umbilical discharge.

DISCUSSION

Peritoneal tuberculosis is a rare form of extrapulmonary tuberculosis in children. Peritoneal tuberculosis can have various manifestations and diagnosis is generally based on a strong clinical suspicion, often made after invasive surgical procedures. Umbilical fistula of tuberculous origin is even rarer. Very few studies have been done and very few cases of tuberculous umbilical fistulas have been described in the literature. Some authors observed damage to the umbilicus with alteration of its morphology in association with peritoneal tuberculosis in children. Diagnosing a tuberculous fistula before surgical exploration is rarely an easy task. However, it is imperative that an attempt to establish a preoperative diagnosis be made. In a country where tuberculosis is so prevalent, it must be kept high on the list of differential diagnoses. When clinical signs and symptoms and other investigations are inconclusive, biopsy of the sinus wall or fistula should be considered. Demonstration of acid-fast bacilli or caseous granulomas with central necrosis in the biopsy of the wall of the fistula. Histopathological examination confirms the diagnosis of tuberculosis. CT scan is the most useful modality for diagnosing abdominal tuberculosis, both intestinal and extra-intestinal. In front of the signs of infection and inflammatory signs and purulent discharge in an older child, we had kept a hypothesis of omphalomesenteric fistula or abscess of the wall. It was intraoperatively that we discovered lesions suggestive of tuberculosis, confirmed by histological examination of the surgical specimen and the expert gene as well as the response to anti-tuberculosis treatment.

CONCLUSION

Diagnosing a tuberculous fistula before surgical exploration is rarely an easy task. However, it is imperative that an attempt to establish a preoperative diagnosis be made. In a country where tuberculosis is so prevalent, it must be kept high on the list of differential diagnoses.

Interest Conflict: None

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