

ABDOMINAL TUBERCULOSIS PRESENTING WITH SPONTANEOUS RECTO-VAGINAL FISTULA IN A 7 YEAR OLD CHILD – A CASE REPORT.

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Submitted on: August 2016
Accepted on: September 2016
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Abstract

Abdominal tuberculosis presenting with spontaneous recto-vaginal fistula is very rare. We present a case of 7 year old, female, Nigerian child who had chronic diarrhoea, weight loss and intermittent fever for one year duration with spontaneous discharge of faecal matter from the vagina for 3 months. Because diagnosis of primary abdominal TB is very challenging, prevention of the disease and high index of suspicion are invaluable in management to reduce morbidity and mortality of the disease.

Keywords: Abdominal tuberculosis, Spontaneous faecal discharge, Recto-vaginal fistula, Posterior sagittal anorectoplasty, Children.

Introduction

Abdominal tuberculosis may masquerade as numerous other disease entities, because it has no telltale signs of diagnosis ^[1]. It has been stated that, the diagnosis of primary abdominal tuberculosis in the living child is almost impossible in the absence of the secondary lesions of the disease ^[2]. Consequently, prevention of the disease and high index of suspicion will reduce the morbidity and mortality associated with the disease. We managed a 7-year old Nigeria girl who presented with non-specific abdominal symptoms associated with spontaneous discharge of faecal matter from

the vagina seen as an unusual presentation of abdominal tuberculosis.

Case Presentation

A seven year old Nigerian girl presented with a one year history of frequent passage of watery blood stained stool, weight loss, intermittent fever and passage of faeces through the external genitalia. Three months prior to presentation, the mother noticed a small painful swelling at the right lower and inner margin of the vulva which subsequently burst discharging purulent fluid, followed by faecal matter. There was neither associated history of chronic cough nor ingestion of unpasteurized milk. There was no close relation with chronic cough,

but child had been in primary school where she mingled freely with her peers prior to onset of ailment.

Examination revealed a chronically ill looking child who was wasted, dehydrated and pale, weighing 13.8kg (62.7% of expected weight). Temperature was 37.6°C and pulse rate was normal. There were no significant generalized lymphadenopathies. The chest was clinically clear, with normal heart sounds. Abdomen was full, moved with respiration, soft with no palpable masses. Groin orifices were intact. The external genitalia was soiled with faeces. The lower fistula opening could not be identified easily. The rectum felt granular but was devoid of palpable masses.

Investigations yielded haemoglobin of 8g/dl, WBC of $5.1 \times 10^9/L$, with a differential count of neutrophils 48%, lymphocytes 40%, and eosinophils 12%. Erythrocyte sedimentation rate was 21mm/hr. Retro-viral screening was negative for HIV 1 and II and stool microscopy, culture and sensitivity

were normal. Chest x-Ray was normal. Following resuscitation and examination under anesthesia, a right recto-fourchette fistula with an indurated internal opening above the anorectal ring and a tiny external opening over the vaginal fourchette was identified. The rectal mucosa was inflamed and granular.

Barium enema examination could not outline the fistula even when there was continuous soilage. She had a defunctioning sigmoid colostomy during which the colon was noticed to be very friable, granular and thickened. Histology of the colonic segment revealed large intestinal tissue displaying chronic granulomatous inflammation of the mucosa and sub-mucosa. The granulomas had langhan's type giant cells with some granulomas showing central necrosis. The histology of abdominal lymph nodes yielded chronic granulomatous inflammation with caseous necrosis consistent with tuberculosis (Figure 1).

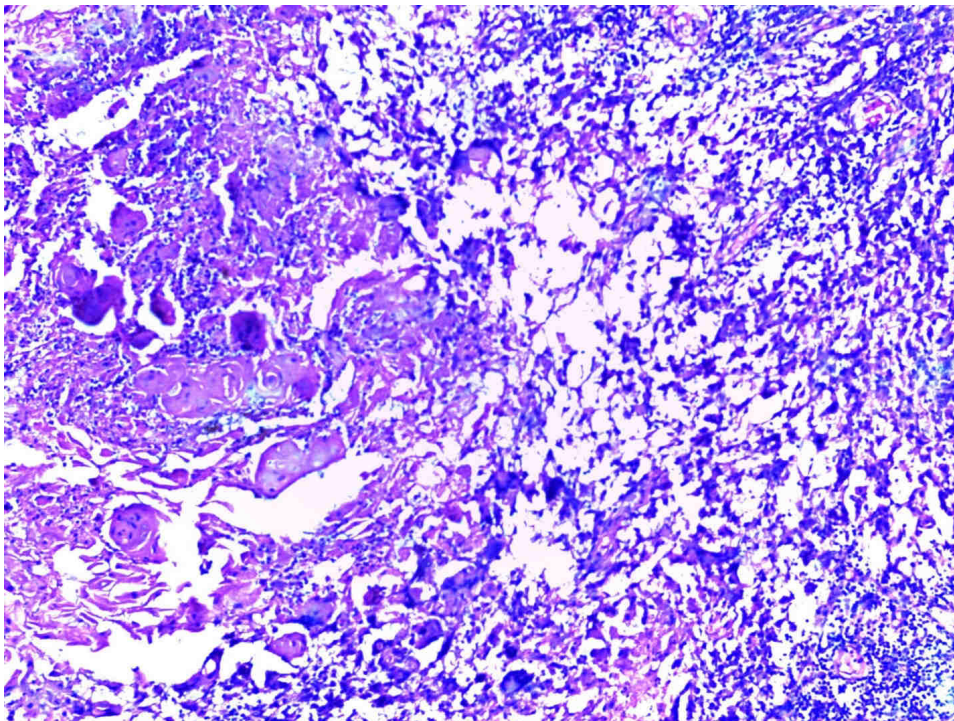


Figure 1: Chronic granulomatous inflammation with caseous necrosis.

Anti-tubercular drugs were commenced and continued for 6 months during which time

the fistula closed. Patient was to have colostomy closure, when on further

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evaluation, the sigmoid colon, rectum and anus were found to have undergone extensive stricturing. As a result, the entire distal bowel segment down to the anus was mobilized and resected in modified Swenson’s fashion. Through an abdomino-perineal approach, a posterior sagittal anorectoplasty was then performed. The patient did well and was discharged home for follow-up in the clinic.

Discussion

The clinical presentation of abdominal tuberculosis is very varied, more so in children. The known classical constitutional symptoms associated with the disease such as fever (40-70%), pain (80-95%), diarrhoea (11-20%), constipation, alternating constipation and diarrhea, weight loss (40-90%), anorexia and malaise^[3], occur only in about one third of patients^[1]. In a review of 26 children with abdominal tuberculosis (TB), Veeragandham et al^[4] found that the diagnosis was suspected in only 23% of the cases. In fact, it is stated that, where the diagnosis of the disease is not suspected clinically, it is a source of significant morbidity and mortality, because such children only present later with serious complications. This was the situation with the index case in which chronic diarrhoea, progressive weight loss and intermittent fever had gone on for over a year, only to present in hospital for the first time with a spontaneous recto-vaginal fistula.

In most series, diarrhoea in abdominal TB is seen as an infrequent symptom occurring in about 29% of cases^[5]. However, Zamora et al^[3] and Ridaura-Sanz et al^[6] reported very wide observation of the symptom in 7% and 76% of cases respectively. This symptom is said to signify occurrence of mucosal ulceration in intestinal tuberculosis^[1]. However, because chronic diarrhoea is non-specific, other disease conditions such as intra-abdominal abscess, fistula, amoebic parasitic infestation and even HIV/AIDs may also cause the symptom^[7].

Whereas recto-vaginal fistula is the most frequent spontaneous gastro-intestinal (GI)

fistula that develops in ulcerative colitis^[8], tubercular rectovaginal fistula is a very rare complication in abdominal TB^[9]. The specific cause of enteric fistula in abdominal TB is unknown, but it is believed that fistula formation evolve from a localized perforation that had an adherent adjacent viscus^[1]. Therefore, pathologic processes characteristic of particular intestinal segments, cause those segments to adhere to adjoining viscera and may communicate^[10]. Hence, spontaneous tubercular enteric fistulas are not truly spontaneous in the strict sense of it, because their development is secondary to underlying intestinal disease^[11].

On the other hand, it is thought that a peri-intestinal abscess such as an anorectal or peri-rectal abscess may rupture into an adjoining viscus, creating a communication^[12].

Despite the fact that the index patient presented with persistent soilage of the vagina with faeces, a low GI contrast study performed failed to outline the fistula tract. This was probably in keeping with the observation that except the fistulous communication was relatively large, its detection on conventional GI studies will often be difficult. Therefore, for this kind of a subtle case and others similar to it, a vaginography was recommended^[13].

In all, four clinical patterns of abdominal TB are said to exist^[14]. These are mesenteric or tubercular lymphadenopathy, peritoneal TB, Gastrointestinal TB and visceral TB^[14]. The index patient had a gastrointestinal lesion which involved the sigmoid colon, rectum and the anus forming an impassable and complete stricture. This necessitated an extensive mobilization and excision of the diseased bowel segments down to the anus, followed by a Posterior Sagittal Anorectoplasty (PSARP) through abdomino-perineal approach to re-establish continuity.

The degree and extent of the intestinal stricture did not allow for the more

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conservative surgery which is now preferred [15].

Generally, three types of surgeries are performed in gastrointestinal TB [15]. These are:

- i. Surgery to bypass involved segments of bowel e.g entero-enterostomy or an ileotransverse colostomy
- ii. Radical resections of segments of bowel e.g Rt. Hemicolectomy and
- iii. Conservation surgeries e.g strictuoplasty in those strictures which cause more than 50% luminal compromise [16]. Out of these three surgeries, the index patient had two of them successfully.

Irrespective of type of surgery performed, compliance with anti-tubercular drugs and follow up of the patient to ensure a sustained recovery were vital to the overall success of management.

Acknowledgements

The authors acknowledge the contributions of the resident doctors, house officers and nurses of the Division of Paediatric Surgery in the care of this child.

Consent for Publication

Written informed consent was obtained from the patient's legal guardians for publication of this case report.

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