

## **UNUSUAL PRESENTATION OF ABDOMINAL TUBERCULOSIS**

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### **ABSTRACT**

Abdominal tuberculosis is not uncommon; Mycobacterium tuberculosis is either swallowed after coughing or in raw milk. Any site along the gastrointestinal tract may be infected. The 45 years –old, Sudanese male presented with abdominal wall sinuses, diarrhoea and weight loss. A clinical diagnosis of unusual abdominal tuberculosis was made and showed remarkable response to anti-tuberculosis therapy we would like to draw attention to unusual presentation of tuberculosis in areas where tuberculosis is common.

### **CASE REPORT**

A 45 years old man, Rashaida tribe, presented to the medical department, Kassala Teaching Hospital with multiple abdominal sinuses, diarrhoea and weight loss for three months. The sinuses are mainly in the lower abdominal wall, below the umbilicus .They discharge pinkish serous like fluid .The diarrhea is 3-4 motions/day, watery with no mucus or blood and not associated with abdominal pain ,nausea or vomiting .The patient lost marked amount of weight . There is no fever, cough, SOB, or chest pain.

The patient denied any past history of chronic cough ,he is not diabetic, or hypertensive. No member of his family had chronic cough or similar problem. The patient is a farmer and animal breeder (sheep and cattle), he is married, has 4 kids, not smoker or alcohol consumer.

On physical examination, The patient looked ill, moderately dehydrated, slightly pale and not jaundiced. There was no lymphadenopathy, heart rate 100/min,

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regular, small volume .BP was 100/65mmHg.Normal heart sounds, no murmurs.

Chest: no deformity ,both sides moves equally , normal percussion note and normal air entry.

Abdomen is not distended ,flank were not full, there were about twenty sinuses over the abdominal wall ,below the umbilicus ,discharging pinkish serous like fluid (see figure1).There are no sinuses at the perineal area .the abdomen is doughy ,no organomegaly ,no masses , no ascitis

CNS examination was intact.

Labortary investegations revealed: Hb 9.0gm/dl, TWBC 8600/mm<sup>3</sup>,with normal differential count,ESR 110mm/hr . Urine and stool examination were normal , CXR was normal, abdominal ultrasound showed normal liver size and echotexture,normal spleen and kidneys, no ascites , no pus collection. Histopathology of biopsies from sinuses showed non-specific granuloma.

## **DISCUSSION**

Tuberculosis can involve any part of the gastrointestinal tract and is the sixth most frequent site of extrapulmonary involvement<sup>1</sup>. Two large series from the UK have reported the prevalence in Asian immigrants as 16 and 36 per 100,000 populations <sup>2</sup>.

Abdominal tuberculosis is not uncommon .Mycobacterium tuberculosis is either swallowed after coughing or in raw milk. Any site along the gastrointestinal tract may become infected and the symptoms are referable to the site infected ,including the following: non-healing ulcers of the mouth or anus ,difficulty in swallowing with oesophageal disease ,abdominal pain with stomach or duodenal infection, malabsorption with infection of the small intestine , and pain , diarrhea or haematochezia with infection of the colon<sup>3</sup>.

The area most commonly affected in the abdomen is the iliocaecal region and patient may present with abdominal pain, diarrhea and low grade fever .Peritoneal tuberculosis is the second common form of abdominal tuberculosis<sup>4</sup> ,and can be divided into wet ,dry and fibrous .In the wet type ,the ascitic fluid protein concentration is more than 20 gm/l .In the dry type ,the patient presents with sub-acute intestinal obstruction due to tuberculous small bowel adhesions.In the fibrous type ,the patient presents with abdominal masses .

Our patient presented mainly with sinuses over the abdominal wall associated with diarrhoea and marked weight loss .the differential diagnoses at presentation were unusual abdominal tuberculosis and Crohn's disease .The most typical manifestation of Crohn disease are abdominal pain and diarrhoea. Fistula and **perianal** disease are not common and maybe refractory to vigorous medical treatment including antibiotic therapy <sup>5</sup>. As Crohn's disease is uncommon in our country and usually the sinuses affect the perineal area, our likely diagnosis was abdominal tuberculosis.

The results of the investigations performed suggested our diagnosis but unfortunately more sensitive and specific investigations like PCR, to confirm tuberculosis were not available at site.

The patient was started on anti-tuberculous therapy: Rifampicin, INH, Pyrazinamide and Streptomycin and Tonics for the two months in hospital .The patient made a good recovery, the diarrhea stopped, the patient put weight and sinuses healed and closed up (see figure2). His hemoglobin was raised to 10.5gm/dl .The patient was discharged on Refinah (Rifampicin and INH), followed up for 4 months as an out patient and he made a complete recovery.

## **CONCLUSION**

Our patient presented with multiple abdominal sinuses, diarrhea and weight loss. As tuberculosis is common in that part of Sudan, a clinical diagnosis of unusual abdominal tuberculosis was made and the patient showed remarkable response to antituberculous therapy. We would like to draw attention to unusual presentation of tuberculosis in areas where tuberculosis is common.

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micro-vascular damage and capillary leak syndrome (16). According to the observation and work up of our team this incubation period could be from 2 days to 4 weeks

The age ratio in the affected patients groups lies between 15 years to 65 years with a mean age around 34 years. This revealed that the active years of life were the commonest to be affected. However no age was immune and those who were in tangible contact with animals were at risk (table 3).

It was also obvious that the majorities of patients either were from rural areas or are nomadic villagers. Larger towns were less involved in this epidemic.

It was known that the virus is transmitted to humans through mosquito's bites or by exposure to blood and body fluids. Drinking raw unpasteurized milk from infected animals can also transmit RVF.

Routine vaccination of livestock in Africa has been prohibitively expensive leading to endemicity of the virus in most of the African countries (16)

It is known that haemorrhagic fevers should be suspected in any patient presenting with severe illness and evidence of haemorrhagic tendency, who has traveled to or resided in an area where the virus is endemic (13).

When the epidemic was established, clinical awareness was optimized to the zenith. Any patient presented with obscure febrile condition, severe prostration and flu like symptoms was a subject for strict evaluation. Frank severe cases with bleeding and acute jaundice or oliguria were the leading caveat for picking patients. More than 200 patients were admitted as cases of RVF. Serological studies, haematological survey, serial renal function assessment and liver function tests were routinely done. Thrombocytopenia was usual although not usually of sufficient severity to account independently for haemorrhagic episodes. Leucopenia was also reported and protein urea and elevation of liver enzymes. However, it was quite peculiar to our experience, that thrombocytopenia was the yardstick in diagnostic and prognostic sequelae of our patient. ) The symptomatology was protean; fever was the leading symptoms in our series with bleeding and jaundice all cases of hepatic and renal impairment presented with fair to deep. As known jaundice is typical in yellow fever and RVF valley fever (17). (table2+fig1)

Patients with renal impairment were generally bleeders but in certain cases, the only presentation was oliguria, odema or pulmonary odema.

All patients with renal failure were subjected to the known management of acute renal failure and renal substitution. Therapy was delivered when there were chemical or symptomatic indications in the form of peritoneal dialysis by soft catheters and 60-200 runs (120 to 400 liters). Minor bleedings occurred from the site of catheters. For hemorrhagic manifestation, fresh frozen plasma and fresh blood were given when needed. No antiviral drugs were administered. Patient

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with hepatic impairment also received management of hepatic coma. The epidemic started to decay with the solidarity of sectors concerned of the team at the beginning of 2008. (fig2)

**Lesson to learn:**

1. Alert is the yard stick for epidemic management.
2. Collaboration between the different sectors.
3. Mobilization of resources.
4. Department for disasters management is to be established.
5. Good professional conduct (despite of what written in the media) will help in dealing with such plight.

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