

DUODENAL TUBERCULOSIS

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ABSTRACT:

Tuberculosis is a world wide communicable disease caused by tubercle bacilli discovered by Robert Kock in 1882^{1,2,3}. In 1993 WHO declared TB as a global emergency due to its world wide resurgence^{2,4}. It can involve any organ of the body^{1,2}. Abdomen is the fourth commonest site of involvement in the extra pulmonary tuberculosis after the lymph-nodes, skeletal and Genito urinary variants¹. In the gastro intestinal tract tuberculosis can affect any part from the mouth to the anus but ileocaecal area is a favourite location. Duodenal involvement is uncommon and accounts for only 2.5% of tuberculous enteritis^{1,3,5,6}.

Major pathogens are Mycobacterium Tuberculosis and bovis and the usual route of entry is by direct penetration of the intestinal mucosa by swallowed organisms⁷.

KEY WORDS: Duodenum, Tuberculosis

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CASE REPORT

A sixteen years old girl, resident of Karachi, was admitted on 29-12-2001 with 2 months history of abdominal pain, vomiting and constipation.

History of Presenting Illness:

She was alright two months back, when she developed upper abdominal pain which was

diffuse and mild in intensity. There was no relieving or aggravating factor related to this pain. The patient also gave history of vomiting whose frequency increased with passage of time. She was used to vomit after every meal. Vomitus contained the food she had eaten in last few days, it was foul smelling and yellow in colour. In relation to her constipation she moved her bowels twice weakly as compared to her normal habit of daily bowl movement. Consistency of stool was firm and of normal colour. There was no history of bleeding per rectum. She did not have history of fever, cough or weight loss.

Family History:

There was no history of chronic illnesses in family, like tuberculosis.

General Examination:

A young girl of average built with pulse rate of 80 beats/min, respiratory rate - 20 breaths/min, temperature - normal and blood pressure - 110/70 mm of Hg.

She was mildly dehydrated.

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Abdominal Examination:

There was fullness in epigastrium and on palpation it was felt as a mass of approximately 10 x 8 cms of size which was not well circumscribed and non tender. It was not moving with respiration.

Liver, spleen and other viscera were not palpable. Succussion splash was present. Bowel sounds were audible.

Respiratory system: Examination revealed normal vesicular breathing with no added sound. Cardiovascular and central nervous system were normal.

Other investigations showed that her haemoglobin was 14G% and ESR 18mm in first hour. Total leucocyte count was normal. RBCs were normochromic and normocytic. Serum electrolytes were Na 127meq/l, K 3.3meq/l, Cl 86meq/l and HCO₃ 30meq/l.

Chest X-Ray:

No active or healed lung lesion seen and normal hilar shadow.

Ultrasound of Abdomen:

This showed dilated stomach and duodenum. No other mass and visceromegaly seen.

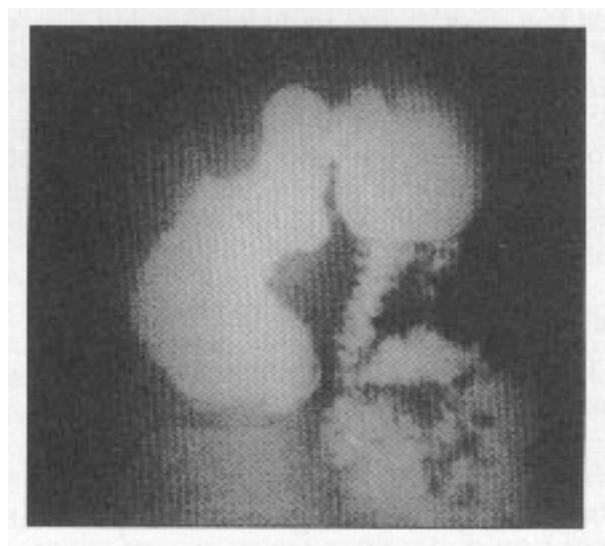


Figure 1: There is marked dilatation of C-loop of duodenum with a sharp cut off causing delayed gastric emptying.

Barium Meal:

Showed markedly dilated C loop of duodenum with a sharp cut off causing delayed gastric emptying (Figure 1).

CT-Scan

CT-Scan (Abdomen) showed marked dilatation of C loop of duodenum with fusiform appearance and narrowing of 3rd and 4th part of duodenum causing delayed emptying of stomach (Figure 2).

Procedure:

At laparotomy, stomach and duodenum were found dilated and serosal surface of 3rd and 4th part of duodenum was studded with numerous tubercles. There were three lymph nodes present at the duodenojejunal flexure.

Excision of lymph nodes and gastrojejunostomy was performed. The recovery was uneventful.

Histopathology report showed chronic granulomatous inflammation compatible with Tuberculosis. She received antituberculous treatment and she is well till to date on her follow up visit.

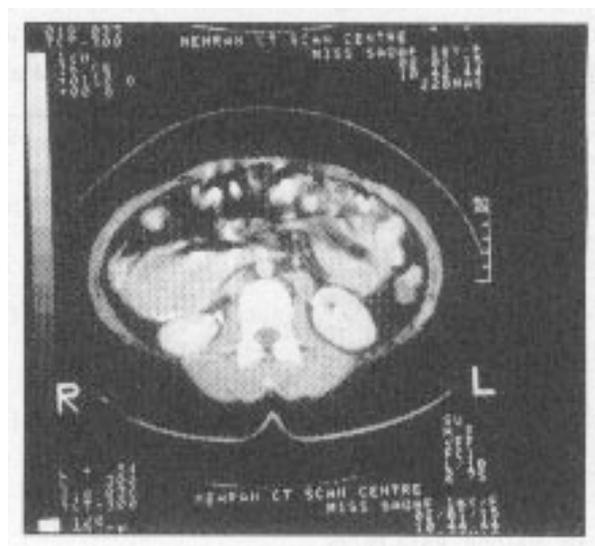


Figure 2: There is marked dilatation of C-loop of duodenum and narrowing of third and fourth part of duodenum.

DISCUSSION

Duodenal involvement in tuberculosis most often leads to formation of stricture and a less common form of obstruction is pressure by enlarged tuberculous nodes at the root of mesentery^{5,8}. Both these features were seen in our case.

The transverse part is the most commonly affected segment in the duodenum and if proximal duodenum is involved⁵ condition presents as gastric outlet obstruction^{5,7,8}. On barium meal study the obstruction is seen either as a sharp cut off or a smooth tapering beak⁸. Duodenal tuberculosis can co-exist with pulmonary tuberculosis in 50% of cases⁵. In this case no pulmonary lesion was seen suggesting that tubercular infection of duodenum was by contaminated milk.

Preoperative diagnosis is difficult and usually made at laparotomy and classical feature is multiple tubercles on the serosal surface as seen in our case^{7,8}. Although duodeno jejunostomy is said to be an ideal form of surgical

treatment but it is not always possible due to caseating nodes in the vicinity and therefore gastroentrostomy is preferred surgical procedure^{7,8}. Antituberculous chemotherapy should be given in all cases post operatively^{3,8}.

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