International Journal of Science and Research (IJSR)
ISSN (Online): 2319-7064
Index Copernicus Value (2013): 6.14 | Impact Factor (2014): 5.611

A Case Report: Duodenal Tuberculosis Presenting as Gastric Outlet Obstruction

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Abstract: ***Duodenal tuberculosis is a rare clinical entity and accounts for 2.3 %[1] of abdominal tuberculosis .It usually occurs secondary to pulmonary tuberculosis. Existing guidelines suggest surgery as the main stay for both obtaining a definitive diagnosis as well as for therapy. Case Report: A 46 year-old patient was admitted to the emergency surgery department with severe abdominal pain, vomiting since 15 days duration. Conclusion: Duodenal tuberculosis, the rarest form of intestinal tuberculosis, poses great difficulty in diagnosis. Radiologic findings and endoscopic biopsy are nonspecific and surgical intervention is often required to make a diagnosis. Treatment is based on antitubercular therapy; surgery is indicated in case of complication.***

Keywords: Duodenal tuberculosis; Tuberculosis; Gastric outlet obstruction; Duodenal stricture; Anti-tuberculosis drugs

1. Introduction

Though tuberculosis is one of the commonest diseases in India yet it involves the duodenum very rarely. Gastrointestinal tuberculosis is an important health problem in developing countries. Ileocaecal and ileal are the usual forms seen in gastrointestinal tuberculosis. Tuberculosis of the upper gastrointestinal tract is rare even in endemic areas [2]. Majority of patients with duodenal tuberculosis have signs & symptoms of gastric or duodenal obstruction due to extrinsic compression by malted tuberculous Lymphnodes but few patients may have intrinsic strictures. This report emphasizes the lack of specific clinical, radiological and endoscopic signs of duodenal tuberculosis and highlights the principal therapeutic modalities.

2. Case Report

A 46 year-old patient was admitted to the emergency department with severe abdominal pain ,vomiting of one month duration. Epigastric pain and an acute episode of vomiting. Epigastric pain was characterized as intermittent, mild and gnawing in character. The patient also reported a slight undocumented weight loss. The patient had no known co morbidities and no history of hospitalization. He had no history of tuberculosis and no known exposure to the disease. The patient's family history was also unremarkable. Physical examination only revealed direct tenderness in the epigastrium. There was no note of lymphadenopathies and the rest of the physical exam was unremarkable. Complete blood count was within normal limits. Chest x-ray was normal.

On barium studies, luminal narrowing at 4th part and duodeno-jejunal junction and proximal dilatations (shown in the Figure 1). Endoscopy was been performed but there was no evidence of stricture till 2nd part of duodenum. He underwent exploratory laparotomy and resection and anastomosis of the stricture(shown in the Figure 2) . Excision of the mass was done as well. Post-operative recovery was uneventful. On histopathological examination, a chronic granulomatous inflammation with Langhanstype giant cell in the duodenal wall The patient was then diagnosed as having duodenal stricture secondary to primary duodenal tuberculosis

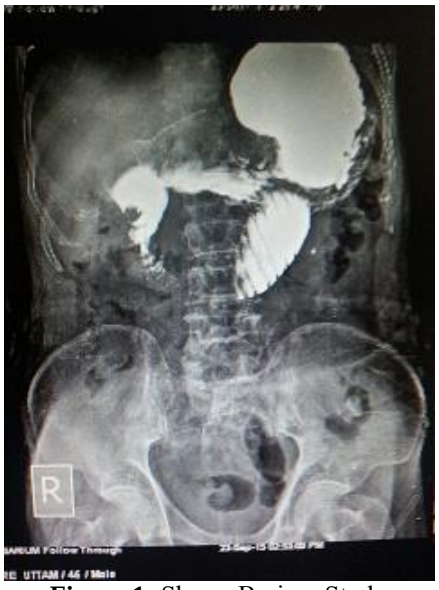

Figure 1: Shows Barium Study

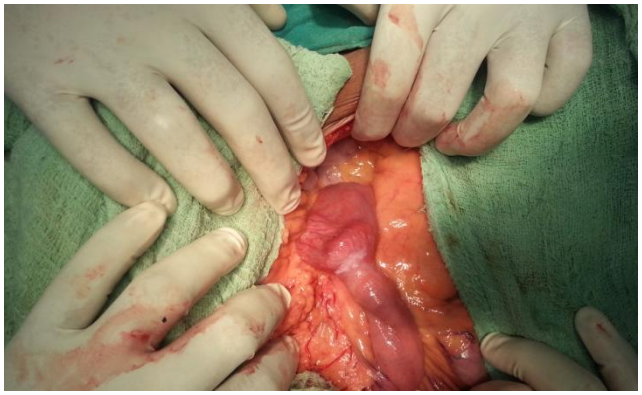

Figure 2: shows stricture in the duodeno-jejunal junction

3. Discussion

Gastric outlet obstruction is commonly associated with malignancies and peptic ulcer disease. However, when no malignancy is seen and a patient is non-responsive to

conventional peptic ulcer treatment, other etiologies need to be explored. Gastrointestinal tuberculosis is not rare as used to be thought of. Though ileocaecal area and jejunum are the commonly involved organs yet esophagus, stomach, duodenum and colon are rarely affected.Usually, the intestinal lesions of tuberculosis are associated with other advanced systemic lesions. Isolated forms of intestinal tuberculosis, particularly of the duodenum, are extremely rare. This is probably due to the rapid transit time taken by the gastric contents to travel through the duodenum. The possible routes of infection are directly through mucosa, hematogenous, lymphatic and from adjacent structures in continuity through serosa.

Tuberculgus lesions of duodenum can be ulcerative, hyperplasic, enteroperitoneal, the first two types being more common. The diagnosis of this disease is difficult and is often made post-operatively. There are no pathognomonic clinical features. A review of 23 consecutive cases of gastroduodenal tuberculosis (15 year span) in India noted that vomiting (60.8%) and epigastric pain (56.5%) are the most common presenting symptoms. Other symptoms noted are weight loss, upper GI bleeding and fever.[3]

The radiological features of duodenal tuberculosis are also non-specific. On barium studies, patients were found to have either one or a combination of mucosal ulcerations, luminal narrowing, extrinsic compression and proximal dilatations[4]. Endoscopy may not be diagnostic and biopsies may only show nonspecific inflammation [5]. In our case, endoscopy was been performed but there was no evidence of stricture till 2nd part of duodenum , since the patient was already deemed to require surgery due to the obstruction. Most case reports also diagnosed duodenal tuberculosis post-operatively. Diagnosis is made through histopathological findings of caseation necrosis and Langhans type giant cell

Management of duodenal tuberculosis is still primarily medical. Studies have shown that if the diagnosis is made prior to surgery, most lesions improve with appropriate treatment[6]. Even in patients with strictures, balloon dilatation has been shown to work together with medication[7]
Due to a lack of accurate clinical diagnosis and radiological features, most patients need surgical intervention for diagnosis [2, 8].In this case, no trial of medication was done since biopsy was not performed pre-operatively. Patient under gone laprotomy for Gastric outlet obstruction.

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