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Case Report

Primary duodenal tuberculosis - A rare case report

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ABSTRACT

Gastroduodenal tuberculosis is uncommon even in parts of world where tuberculosis is endemic and accounts for 2.3 % of abdominal tuberculosis. We present here a case of duodenal tuberculosis who presented with vomiting, pain abdomen and weight loss. Duodenoscopy revealed mucosal ulceration and nodularity with marked enlarged and erythematous surrounding folds. Histopathology of duodenum showed features of tuberculosis.

INTRODUCTION

Duodenal tuberculosis is a rare clinical entity even in the endemic area like Nepal and accounts for 2.3 % of abdominal tuberculosis.[1] Ileocaecal and ileal are the usual

forms seen in gastrointestinal tuberculosis. It usually occur secondary to pulmonary tuberculosis. Recurrent vomiting due to gastric outlet obstruction is the main symptom.[2] Duodenal lesion may be intrinsic (ulcerative, hypertrophic or ulcerohypertrophic) or extrinsic (i.e. compression of duodenum by enlarged periduodenal lymph nodes from the outside).[3,4]

CASE REPORT

A 27-year-old male presented with recurrent episode of vomiting for 4 months. Vomiting was projectile containing ingested food not containing blood or bile. Patient also complained of occasional dull non radiating epigastric pain aggravated by food and relived after vomiting. Pain is not associated with any visible peristalsis. Patent's

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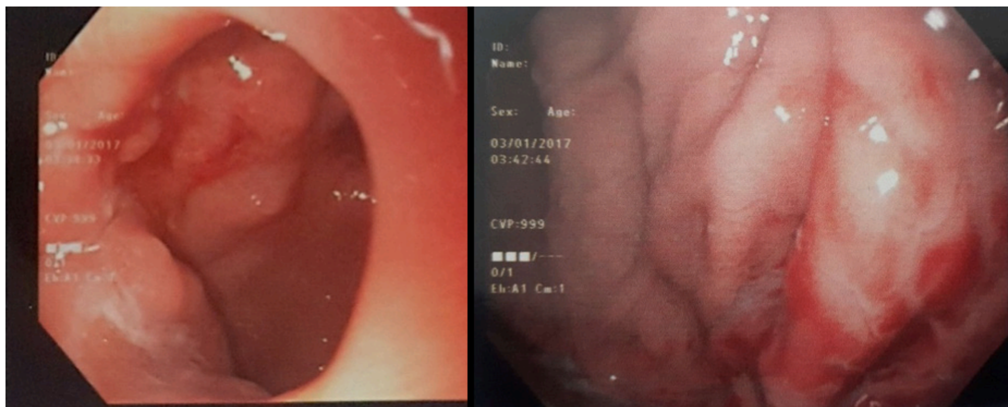

Figure 1: Endoscopy of upper GIT shows duodenum bulb is deformed. Mucosal ulceration and nodularity with marked enlarged and erythematous surrounding folds are seen involving post bulbar area. Lumen is partially narrowed.

appetite has decreased and he has lost about 7 kg weight over last 4 months period. He has no alteration in bowel habit. Patient is nonsmoker and there is neither any previous history of tuberculosis nor any history of contact with tuberculosis patient. He was treated with antacids and proton pump inhibitors during this time. Patient did not have any comorbid illness, no history of prolong fever during this course of illness. After admission in, Bangabandhu Sheikh Mujib Medical University hospital, we found, patient has mild anaemia, edema, and angular stomatitis. There is no lymphadenopathy. Vital parameter is normal. Abdominal examination reveals there is no ascites and no visible peristalsis no organomegaly. Respiratory system examination reveals no abnormality. Investigation showed (Table 1) ESR was raised and mantoux test positive (14 mm). Barium follow through study showed deformed duodenal cap and duodenal loop was not outlined. Upper GI endoscopy shows Bulb is deformed. Mucosal ulceration and nodularity with marked enlarged and erythematous surrounding folds were seen involving post bulbar area. Lumen is partially narrowed and scope could be passed into the 2nd part. (fig.1) Biopsy reveals the diagnosis by showing dense infiltration of chronic inflammatory cells along with epithelioid Granuloma and was diagnosed as duodenal tuberculosis. The patient was started on quadruple anti-tuberculous medication and had improved on discharge. The patient was symptom free 2 months later.

Table1: Investigations findings of the patient.

Test Parameters	Findings
Hb	11.2 gm/dl
ESR	65mm in 1st hour
Total leukocyte count	12 ×109/L
Differential count	Neutrophil 90%
	Lymphocyte 6%
	Monocyte 4%
CXR	Normal
Mantoux test	Positive (14mm)
Serum Albumin	26g/l
Creatinine	0.89mg/dl
RBS	7.3mmol/l
CRP	6.8mg/dl (Reference <0.5mg/dl)

DISCUSSION

Common cause of gastric outlet obstruction is Peptic ulcer disease and malignancy. But if malignancy is not seen and patient is nonresponsive to anti-ulcer measures other etiology should be evaluated.

Gastroduodenal tuberculosis (TB) is uncommon even in parts of world where TB is endemic. The bactericidal property of gastric acid along with motor activity of the stomach and scarcity of lymphoid tissue in gastric wall are reasons for infrequent involvement of gastroduodenal area.[5] The possible routes of infection are directly through mucosa, hematogenous, lymphatic and from adjacent structures in continuity through serosa.[6] Reccurent vomiting is the cardinal symptom.[2] 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.[6]

Endoscopy is of little value in obtaining a specific histological diagnosis in duodenal tuberculosis.[7-10] Previous study from India shows that yielding of diagnosis of duodenal tuberculosis from endoscopic biopsy range from 0 to 10 percent.[8-10] Hence surgery was recommended for making a diagnosis. But endoscopic diagnosis from a duodenal stricture depends on whether the mucosa is directly involved or the narrowing is from extrinsic compression from periduodenal lymph node. In another study, Puri AS et al were able to show the yielding of granulomatous lesion more than 90% by using combination of endoscopic biopsy and endoscopic mucosal resection.[11]

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Balloon dilatation of stricture is successful and a good treatment option along with

antitubercular treatment.[12,13] Regarding duration of antitubercular treatment, Puri AS et al showed in a study that usual duration is 6 months and they extend the duration arbitrarily in patients whose resumption of normal diet was delayed.[2] Laparotomy is usually necessary to diagnose the disease and for the relief of obstruction.[12,13]

Conflict of Interest: None

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