



CASE REPORT-DUODENAL TUBERCULOSIS

General Surgery

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ABSTRACT

Gastroduodenal tuberculosis (TB) is a rare condition and is often associated with pulmonary TB. We report the case of a duodenal TB with gastric outlet obstruction in a patient without evidence of pulmonary TB. Diagnosis of this disease is difficult and is often confused with chronic peptic ulcer disease.

KEYWORDS

Tuberculosis; duodenum; gastric outlet obstruction

Case Profile-

A 35 years old male patient presented with chief complain of weight loss since 5 months, associated with bilious, non-projectile, on and off episodes of vomiting since 2 months which was increase in last 1 month. There were no other complains. Past and family history was non-significant. Physical examination was normal except for mild pallor. Patient's vitals were normal and systemic examination was unremarkable. On per abdomen examination mild tenderness present over epigastrium. In Laboratory investigations; Hemoglobin -10.3 gm/dl, Total Leukocyte Count-6700/mm³, Platlet count-2.3 lacs/mm³, ESR-9 mm/hour, s.creatinine-0.8mg/dl, s.sodium- 139mmol/L, s.potassium- 4.5mmol/L. X-ray abdomen and chest was unremarkable. Barium meal examination suggestive of irregular stricture involving 3rd part of duodenum with proximal dilatation (Figure 1). CECT abdomen suggestive of mild circumferential thickening in involving 3rd part of duodenum with proximal dilatation suggestive of benign stricture with mild free fluid in peritoneal cavity possibility of Koch's etiology (Figure 2). Upper Gastrointestinal scopy was suggestive of granulomatous lesion in 3rd part of duodenum with stricture and ulceration (Figure 3). Biopsy of the lesion showed actively inflamed mucosa with epithelioid cells, histiocytes and giant cells suggestive of Tubercular granuloma. Patient was undergone exploratory laparotomy. On exploration tubercles were seen all over peritoneum and over proximal part of small bowel. Obstruction was present over 3rd part of duodenum (Figure 4). Side to side Duodeno-jejunosotomy with 2nd part of duodenum and jejunum was performed (Figure 5). Post-operative period was uneventful.



Figure:1

Figure:2

Figure 1&2: Barium meal examination & CT scan showing dilated proximal duodenum and distal stricture.

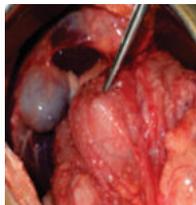


Figure:3

Figure:4

Figure:5

Figure3: Endoscopic view showing granuloma in 3rd part of duodenum.

Figure 4: Intraop finding of tubercles over duodenum.

Figure 5: Intraop picture of side to side duodeno-jejunosotomy.

DISCUSSION-

TB is a major public health problem especially in lower and middle-income countries. Abdominal tuberculosis is the third largest extrapulmonary manifestation of tuberculosis, accounting for 11%–16% of cases.^(1,2) The incidence of gastroduodenal tuberculosis is reported as 0.5%. Tuberculosis can involve any part of the gastrointestinal tract, and the ileocecal area is the most common site, followed by the peritoneum and mesentery. This exceedingly rare incidence is attributable to the high acidity and paucity of lymphoid tissue in the duodenum as well as rapid transit of food in the gastroduodenal area.⁽³⁾ They may present with pain, vomiting, dyspeptic symptoms, ulcer bleed, ulcer perforation, Gastric outlet obstruction, or duodenal obstruction. Obstruction can be caused by involvement of the bulbar or posterior mucosa or by exogenous compression of the perigastric or periduodenal lymph nodes.⁽⁴⁾ Internal GI fistulation or fistulae with kidney, aorta and mesenteric artery have also been described.⁽⁵⁾ Duodenal tuberculosis is a diagnostic challenge because there are no specific symptoms. Its most likely misdiagnoses are peptic ulcer disease,⁽⁶⁾ inflammatory bowel disease, and malignancy.⁽⁶⁾ A recent study has shown that GDTB and corrosive ingestion appear to be almost as common as peptic ulcer disease as etiology of benign gastric outlet obstruction in the Indian subcontinent.⁽⁷⁾ Diagnosis is difficult to establish on the basis of clinical features and imaging as there is no specific pathognomic feature of the disease. Sharma et al. reported that endoscopic ultrasonography (EUS) is an excellent modality for characterizing the lesion, as well as obtaining a sample for cytological confirmation of the diagnosis.⁽⁸⁾ The most convenient method for endoscopic evaluation is multiple-specimen biopsy, which should be sent for histological analysis, AFB staining/culture.⁽⁹⁾ The sensitivity of AFB staining is low, it is still considered a clinically useful auxiliary method due to its high specificity, and it should remain an important part of the diagnostic evaluation of endoscopic biopsy specimens.⁽⁹⁾ In some cases, when acid-resistant bacilli cannot be identified, PCR may aid in the diagnosis.⁽¹⁰⁾ The diagnosis of primary gastroduodenal TB is usually made after surgical intervention and is very rarely made preoperatively.⁽³⁾ Multiple intraoperative fine-needle aspiration cytology (FNAC) may be taken from the diseased portion of the duodenum to establish the histopathological diagnosis if not established by any other means.⁽¹¹⁾ In majority of the cases diagnosis is made per-operatively and treatment for these cases is gastro-enterostomy or entero-enterostomy along with Antitubercular therapy (ATT).⁽¹¹⁾

CONCLUSION-

Primary upper GI tuberculosis is rare. Abdominal tuberculosis is difficult to diagnose which is often delayed due to its insidious course. It should be ruled out in cases of chronic ulcer disease with gastric outlet obstruction, especially in young people from endemic areas. Treatment is medical. Surgery should be reserved for complications.

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