

Obstruction of Third Part of Duodenum due to Tuberculous Lymphadenitis

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Abstract

Extrinsic compression by tuberculous mesenteric nodes is the rarest form of duodenal obstruction. Herein we report case of obstruction of the third part of duodenum due to tuberculous lymphadenitis, the presentation of which resembled superior mesenteric artery syndrome. The limitations of clinical evaluation, radiology and endoscopy are stressed and value of laparotomy is highlighted.

Introduction

Isolated obstruction of the third part of duodenum is rare. Causes of intrapapillary duodenal obstruction includes - midgutvolvulus with transduodenal band, duodenomesocolic band, superior mesenteric artery syndrome, tumours of pancreas, duodenal neoplasia, traumatic or inflammatory strictures and pressure by lymphnodes. Obstruction of third part of duodenum due to extrinsic compression by tuberculous lymphnodes is uncommon and one such case is presented.

Case Report

A 17 year old female, presented with complaints of pain in upper abdomen with vomiting after having food since 3 months. Pain in abdomen was relieved after vomiting. History of low grade fever since 2 months. No history of haematemesis and pulmonary Kochs. On clinical examination upper abdomen was distended with succussion splash. There was no hyperperistalsis. Blood investigations revealed, Hb - 11.5 gm%, ESR - 85 mm at end of an hour. Rest of the blood chemistry were within normal range. Chest skiagram revealed right midzone consolidation. Barium meal revealed distended stomach, first and

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Fig. 1 : Barium meal showing dilated stomach and duodenum

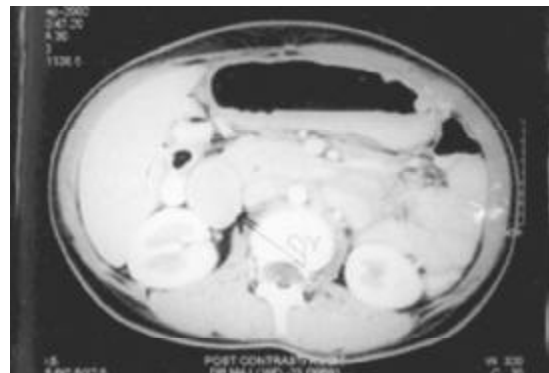


Fig. 2 : CT scan showing narrowing of third part of duodenum and dilated 2nd part

second part of duodenum with delayed transit of barium to intestine suggestive of obstruction of 3rd

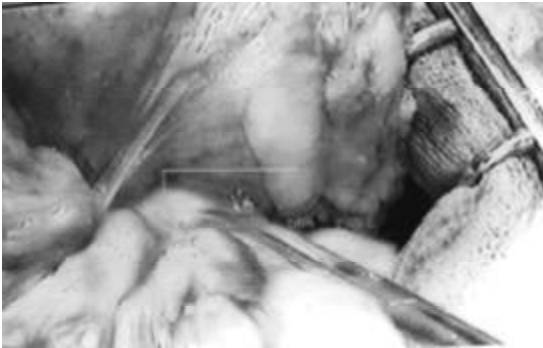


Fig. 3 : Intra-operative photograph showing lymph node mass at the root of the mesentery

part of duodenum. Upper GI scopy showed no intraluminal mucosal lesions but stomach and duodenum was roomy. CT scan abdomen revealed distended stomach and duodenum till third part of duodenum, suggestive of superior mesenteric artery syndrome. Laparotomy was done which revealed multiple lymphnodes at root of mesentery and around the third part of duodenum, compressing duodenum, with dilatation of proximal duodenum and stomach. Duodenojejunostomy was done to bypass obstructed third part of duodenum. Lymphnode biopsy was done. Histopathology of mesenteric lymphnode was suggestive of tuberculosis. Patient was started on 4 drug antituberculous chemotherapy. Postoperative recovery was uneventful; patient had 2 kg of weight gain on follow up after 1 month and was symptomless on regular follow up.

Discussion

Gastrointestinal tuberculosis is still rampant in our country and can mimic other GI diseases. Isolated duodenal involvement is uncommon. Tuberculosis of GI tract most often affects the ileocaecal region.¹ Involvement of stomach and duodenum is rare.¹ This is attributed to the presence of acid, rapid transit of gastric contents past the duodenum, and the paucity of lymphoid tissue in the region.² Duodenal involvement accounts for only 2.5% of TB enteritis.¹ The disease may be extrinsic or intrinsic or both.¹ In the extrinsic type there can either be primary duodenal involvement or compression due to enlarged tuberculous



Fig. 4 : Intra operative photo showing dilated stomach and duodenum

lymphnodes at the root of mesentery. Three types of lesions are recognized with intrinsic involvement ulcerative, hypertrophic and ulcerohypertrophic.¹ The third part is the most commonly affected site in the duodenum.³ Usually patients are in second and third decade of life and more common in females.^{4,5} The clinical manifestations of duodenal TB are varied and nonspecific. Our patient had features of outlet obstruction. In a series of 30 patients two types of presentation were recognized. Twenty two had features of obstruction while 8 had mainly dyspeptic symptoms.⁴ The patients of duodenal obstruction present with pain in abdomen relieved by vomiting with presence of succussion splash.^{5,6} Fever and weight loss may be present. An epigastric mass may be palpable in 33% of patients.⁷ Active pulmonary tuberculosis can be seen in some of the patients but the incidence of pulmonary Kochs with alimentary Kochs is not consistent.¹ The radiological features are suggestive of distal duodenal obstruction, but there are no specific radiological features suggestive of duodenal tuberculosis. Endoscopy may not be diagnostic and biopsies obtained show only nonspecific inflammatory changes.⁸ In our case, the barium studies showed massively dilated stomach, first and second part of duodenum with a narrow cut off in the third part of

duodenum. CT scan abdomen was suggestive of superior mesenteric artery syndrome. Differentiation from other causes of extrinsic pressure may not be easy particularly superior mesenteric artery syndrome which is more common.^{6,9} Laparotomy with histological examination of the lymphnodes is necessary for a definitive diagnosis.^{4-6,8} Duodeno jejunostomy is ideal, but may not always be possible due to caseating nodes in the vicinity⁶ and gastrojejunostomy maybe the only alternative available. We have done duodenojejunostomy for our patient. The complications of duodenal TB other than obstruction are gastrointestinal bleeding, perforation and fistula formation with other parts of gastrointestinal tract and even the kidney aorta^{4,10-12} and obstructive jaundice due to occlusion of common bile duct.¹³

Conclusion

Duodenal tuberculosis being an uncommon form of intestinal tuberculosis poses great difficulty in diagnosis. High index of suspicion supported by radiological investigation, exploratory laparotomy and histopathological examination of the tissue biopsy can only lead to a definitive diagnosis of this rare condition. Surgical treatment involves bypassing the lesion and antituberculosis therapy.

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