

3 Case Reports of Primary Gastric Tuberculosis

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Introduction : Primary Tuberculosis of the stomach is quite uncommon, and it accounts for only 0.5–3% of all cases of gastrointestinal TB. Involvement of TB primarily to stomach is considered to be rare in absence of Pulmonary tuberculosis without any immunosuppression.

Case 1

A 25 years male presented with epigastric pain, nausea and vomiting for 5 months. There was no weight loss. There was no past or family history of tuberculosis. Physical examination did not reveal any abnormality. Patient was non-diabetic. X ray chest, complete blood count, liver and renal function tests were normal. His HIV status was negative. Upper GI endoscopy was suggestive of ulcerated lesion at the prepyloric area without any gastric outlet obstruction. Endoscopic mucosal biopsy showed fragments of gastric mucosa with ulceration and lamina propria shows dense inflammatory cell infiltrate comprising of neutrophils, eosinophils, lymphocytes and plasma cells. Ill formed granulomas with Langhans giant cells seen. Sections did not reveal malignancy. CT scan of abdomen suggested thick antrum with dilated stomach, without any lymph node enlargement or ascites. Patient was put on antituberculous treatment (ATT) regimen consisting of (HREZ) 2(HR) 4 that is Isoniazide 5 mg / kg, Rifampicin 10 mg/kg, Ethambutol 15 mg/kg and Pyrazinamide 25 mg/kg body weight for initial 2 months followed by Isoniazide and Rifampicin in same dose for another 4 months. Review endoscopy shows complete resolution of the lesions.

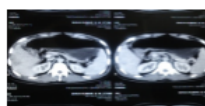
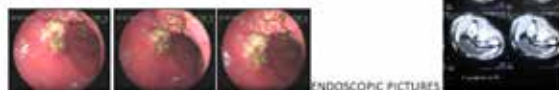
Case 2

A 35 years male presented with epigastric pain, nausea and occasional vomiting for 3 months. He had significant weight loss in 2 months. There was no past or family history of tuberculosis. Physical examination was normal without any abnormality. Patient was non-diabetic or hypertensive. X ray chest, complete haemogram, liver functions and renal function tests were normal. His HIV test was also negative. Upper GI endoscopy showed diffuse ulcerated mass near the antrum very close to the pyloric opening with partial obstruction, where scope could not be negotiated further. Endoscopic biopsy done and showed caseating granuloma with epithelioid cells, Langhan's giant cells and acid-fast bacilli on Zeil Nelson staining. Ultrasound of abdomen showed antral wall thickening with dilated stomach which was confirmed by a CT scan of abdomen. Patient was put on antituberculous treatment (ATT) regimen consisting of (HREZ) 2(HR) 7 that is Isoniazide 5 mg / kg, Rifampicin 10 mg/kg, Ethambutol 15 mg/kg and Pyrazinamide 25 mg/kg body weight for initial 2 months followed by Isoniazide and Rifampicin in same dose for another 6 months. He gained 4 kgs weight and was symptom free within first 2 months of treatment. Repeat upper GI endoscopy after 6 months of treatment showed good healing without much scarring.

Case 3

A 56 years old female presented with epigastric pain, anorexia and nausea, and weight loss of 5kgs in 3 months. No family history or history of tuberculosis in the past. Patient was non diabetic. Her physical examination was within normal limits. Her investigations like X ray chest, complete hemogram, liver and renal function tests were normal. HIV testing was negative. Upper GI endoscopy showed well defined multiple ulcers of varying size in the antrum extending to pylorus without any pyloric obstruction. Endoscopic biopsy showed caseating granuloma with lot of epithelioid and giant cells. she was put on ATT regimen of (HERZ) 2(HR) 4 during which, he gained weight of 8 kgs and was symptom free. Upper GI endoscopy at 6 months was normal.

ENDOSCOPIC PICTURES



CT Abdomen, stomach showing wall thickening



Discussion

Primary Tuberculosis (TB) of the stomach is quite uncommon, and it accounts for only 0.5–3% of all cases of gastrointestinal TB (1). Involvement of TB primarily to stomach is considered to be rare. Otherwise the most common site for intra-abdominal tuberculosis is ileocecal region.[7] most of the times the gastric tuberculosis is seen secondary to pulmonary tuberculosis. [5] TB confined to primarily to stomach without any where else is rare. [3] The probable reason for its rarity is attributed to bactericidal property of gastric acid, paucity of lymphoid tissue in gastric wall and gastric mucosal barrier, intact mucosa. The variable routes of infection include direct infection of the mucosa through ingestion, hematogenous spread or extension from neighbouring tubercular lesion. [6] the most common feature of primary TB of stomach is symptoms mimicking peptic ulcer disease. Usually it may mimic as malignancy. Okoro EO and Komolafe OF [8] reported two patients of gastric tuberculosis with unusual presentations. One of their patients was elderly man suspected to have abdominal malignancy but subsequently found to be extensive, complicated gastric tuberculosis coexisting with chronic peptic ulcer disease. The second patient was female who developed gastro-bronchial fistula due to tuberculosis, which was evident radiologically. A report by Chetri K [9] et al has shown a case of gastric tuberculosis presenting as non-healing gastric ulcer. Out of 5, three of our cases presented with gastric outlet obstruction, which is the most common presentation of gastric tuberculosis. [10] These 3 patients had to undergo subsequently laparotomy for relieving obstruction and tissue diagnosis. One of these 3 showed features of portal hypertension with splenomegaly, which was due to old tuberculous lymphadenitis causing portal vein thrombosis. Wig JD [11] et al reported a case of isolated gastric tuberculosis presenting as massive hematemesis. This patient was found to have benign gastric ulcer along the lesser curvature. The

diagnosis of tuberculosis was done on histopathological examination showing caseating epitheloid cell granulomas. It is well known fact that probably due to lack of accurate clinical diagnosis, most patients end up with surgical intervention and the diagnosis of gastric tuberculosis is made after surgery. Remaining 2 patients presented with dysphagia and a mass lesion at gastroesophageal junction. Tuberculous lesions of the stomach are usually located on lesser curvature of the antrum and often involve the duodenum but the finding of a tuberculous ulcer at the gastroesophageal junction is uncommon. [13] The diagnosis of tuberculosis can be established by mere good jumbo biopsy which may reveal caseation, epitheloid granuloma, giant cells or even acid-fast bacilli on staining. Differential diagnosis are When granulomas are Crohn's disease, sarcoidosis, syphilis, mycotic lesions when there is non-caseating picture on biopsy.[6,13] Petrianni A et al have reported a case of abdominal tuberculosis mimicking Crohn's

disease in an immigrant girl from Peru. In all of our 5 cases, granulomas were composed of caseation necrosis and epitheloid cells. We were able to demonstrate AFB bacilli in all of them. Other possibilities of granulomatous lesions were ruled out clinically keeping in mind high incidence of tuberculosis in India. The clinical response to ATT and repeat endoscopic examination also supported the diagnosis.

Conclusion

Although primary gastric tuberculosis is rare entity, in India, where tuberculosis is so common, it should always be kept in mind when there is evidence of pain abdomen, weight loss with no other co morbid conditions along with endoscopic evidence of diffuse ulcerations, pyloric obstruction due to diffuse ulcerated lesions or chronic inflammatory activity.

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