



CASE STUDY OF RARE DIAGNOSIS OF TUBERCULOSIS IN STOMACH

General Surgery

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ABSTRACT

Tuberculosis is a major worldwide public health concern. With far greater burden, prevalence and devastation in developing countries like India. Incidence of extra pulmonary tuberculosis accounts for 15-20% of all the tb cases in India. We present a case of an adult male admitted in general surgery department with symptoms of dysphagia and weight loss and considered a provisional diagnosis of gastric outlet obstruction. Intraoperative diagnosis of gastro intestinal tumour was made which was backed by the endoscopy report. But the histopathological analysis showed as granulomatous gastritis. Patient underwent operation and started on antitubercular therapy. Extrapulmonary tuberculosis may be a common entity in today's practice but gastric tuberculosis is extremely rare presentation of gastrointestinal tb, which is being discussed in this case report

KEYWORDS

INTRODUCTION

Tuberculosis is world health problem since ages and one of the highest mortality and morbidity rates in India. India houses the world's highest tb burden. There are various strategies for the diagnosis and treatment in place for diagnosis and treatment by the government of India. But this poses a great challenge in case of extrapulmonary tuberculosis. Extrapulmonary tuberculosis accounts for 15-20% of the tb cases in India. Diverse clinical manifestations, difficulties obtaining samples for diagnosis, decreased therapeutic efficacy due to limited tissue penetration, difficulty tracking treatment response, and unknown treatment length are some examples of these challenges that makes managing EPTB difficult.

Abdominal tb the sixth most common form of EPTB, constituting ~3% of all EPTB cases globally, and 11-13% of cases in India, with the gastrointestinal tract accounts for around 60 percent of cases of abdominal TB, followed by the peritoneum (20-47 percent), lymph nodes, and then solid organs such as the liver, gall bladder, spleen, and pancreas, which are extremely rare and accounts for less than 20 percent of cases. Ileocecal TB is the most prevalent gastrointestinal TB site, followed by the jejunum and colon. Rarely cases of oesophagus, stomach, or duodenum ever seen.

Gastric involvement of tuberculosis can occur due to primary from the lungs or seen in immunodeficient patient. But a primary case of gastric tuberculosis is rare (0.4%-2%) due to the bactericidal properties of gastric acid. Scarcity of lymphoid tissue in the mucosa, Rapid emptying of gastric contents. These patients give a vague history of abdominal discomfort or pain, weight loss due to loss of appetite, may be associated with fever mimicking gastric outlet obstruction. Later this progress to form ulcerative or hypertrophic lesion in the pylorus or lesser curvature. In later stages lead to pyloric stenosis.

On imaging these cases present with benign ulcerative or hypertrophic lesion making difficult to differentiate from other conditions with a similar history and presentation and which happen to be more common in comparison; like carcinoma, lymphoma and other infections like syphilis.

Case Presentation

A 43-year-old Indian male was referred to the general surgery department of the Sathagiri institute of medical science and research centre.

He complains of upper pain abdomen in the last 2 months and associated loss of weight for 2 months

Pain abdomen was insidious in onset, progressive in nature,

intermittent type

History of weight loss of about 10 kgs in a period of 2 months. Associated with loss of appetite

No history of vomiting, melaena, hematemesis, altered bowel habits, trauma to abdomen.

Past medical history included type 2 diabetes mellites and hypertension for which the patient was not on regular medication

Patient had not undergone any previous surgeries. Patient had not habit of smoking and alcohol consumption. Family history was of no relevance

On clinical examination vitals were within normal limit with no presentation of pallor, icterus, cyanosis, clubbing, lymphadenopathy, oedema.

On abdominal examination his abdomen appeared distended but soft with no visible peristalsis, no engorged veins and striations. Palpation revealed epigastric tenderness with a mass of 3cm x 2cm felt in the right hypochondrium. Mass had well defined margins region extending 1cm below the right costal margins close to the midline and 1cm above the trans pyloric plane. Mass moved along with respiration.

Blood investigation were conducted consisted of complete blood count, liver function test, renal function test and serum electrolytes which were unremarkable. Tumour markers were not requested as gastric outlet obstruction was suspected. Patient presented with contrast enhanced CT of abdomen and pelvis, which revealed polypoidal lesion arising from the anterior wall of the pylorus of stomach compromising the lumen with perilesional fat stranding with adjacent subcentimeter lymph nodes—likely to malignant lesion

Following this an endoscopy was arranged which suggested gastric submucosal lesion that can GIST. i.e lesion in the antrum measuring 3cm x 4cm with central umbilication.



FIG1

FIG2

Surgery department deemed that surgical intervention was the best approach for managing this case.

Hence distal gastrectomy with bilroth I anastomosis was planned. Intraoperatively a mass of over the anterior surface of the distal stomach and the anterior surface of the pylorus extending into the lumen. Mass on palpation was firm in consistency and with irregular surface. Meckels diverticulum was also identified



Fig3- Intraoperative image of mass of 4cm x 3cm over the anterior wall of stomach extending into the pylorus.



Fig4- Intraoperative image of mass was excised with a proximal margin of 5cm above and distal margin of 2cm below the mass at the pylorus end.

The sample obtained intraoperatively was sent for histopathological examination for further evaluation and to confirm the diagnosis. But the mass presented with granulomatous lesion on microscopy (as shown in FIG5)

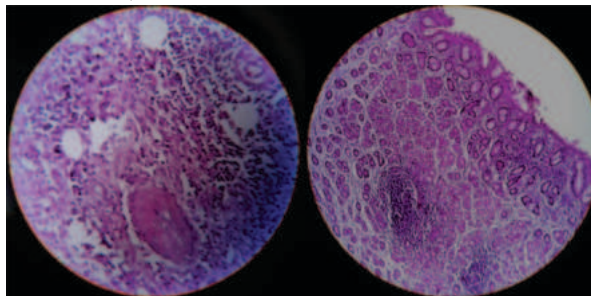


FIG6

DISCUSSION

We are reporting a case where the adult male came to the general

surgery department of Saphthagiri hospital medical science and research suggestive of a typical case of gastric outlet obstruction.

The endoscopy and intraoperative findings were also leaning towards our provisional diagnosis of gastrointestinal tumour. But the histopathological report said otherwise giving a finding of granulomatous gastritis.

Gastrointestinal tuberculosis is frequent type of abdominal tuberculosis with ileocecal region being the most common area of tuberculosis infection³, due to the long physiological stasis, abundant lymphoid network namely the Peyer's patches and high absorptive nature of the mucosa.

In this patient the only pathological finding was the biopsy of the specimen distinguishing from the gastric tuberculosis with vs the provisional diagnosis of gastrointestinal tumour despite strong evidences from endoscopy and intraoperative findings.

Showing the difficulty that the extrapulmonary tuberculosis especially the abdominal tuberculosis poses for diagnosis which cause a great deal of delay in the treatment. Therefore, the patients of extrapulmonary tuberculosis present in a later stage requiring a more aggressive treatment approach.

CONCLUSION

A major obstacle to diagnosing abdominal tuberculosis is its nonspecific clinical symptoms, which might mimic certain other gastrointestinal disorders, including cancer. Hence, In the differential diagnosis of abdominopelvic symptoms, abdominal TB should be taken into account¹. The results of histopathological analysis may be used to validate bacteriological indicators and related tissue alterations, as well as to make an accurate diagnosis and recommend appropriate treatment and management.

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