

## Case Report

# Tubercular lymphadenopathy with duodenal fistula

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## Abstract

Tuberculosis, both pulmonary and extrapulmonary, is one of the leading causes of significant morbidity and mortality in developing countries. A 29-year-old chronic alcoholic patient presented to gastroenterology outpatient department with complaints of decreased appetite, weight loss, and generalized weakness. On endoscopy, the second part of duodenum appeared edematous with some luminal compromise. There was also presence of an opening in the inferolateral wall of the second part of duodenum, through which milky white caseous material was coming out. Computed tomography demonstrated large conglomerate of paraduodenal, celiac, para-aortic, peripancreatic, and retrocausal nodes with central necrosis. Endoscopic ultrasound showed hypoechoic lymph nodes in paraduodenal, parapancreatic, and celiac axis. Fine needle aspiration cytology showed epithelioid granuloma with Langerhans giant cells suggestive of granulomatous lymphadenitis of tubercular etiology. Tubercular lymphadenopathy eroding into duodenum has been very rarely reported in literature. This case reports the rare possibility of extrinsic tubercular lymphadenopathy eroding into duodenum.

## Key words

Duodenal tuberculosis, endoscopic ultrasound, tubercular lymphadenopathy


## Introduction

Tuberculosis, both pulmonary and extrapulmonary, is one of the leading causes of significant morbidity and mortality in developing countries. In India, it has been a long battle to overcome the disease burden. With such a high prevalence of disease, unusual presentations and unusual sites of affliction can occur. We report this case of tubercular lymphadenopathy eroding into the duodenal wall causing duodenal fistula. This case highlights the potential unusual presentation of tuberculosis and its myriad manifestations.

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## Case Report

A 29-year-old chronic alcoholic patient presented to gastroenterology outpatient department with complaints of decreased appetite, weight loss, and generalized weakness. Patient also complained of low-grade fever and vomiting, 1–2 h after food intake. Patient was referred for upper gastrointestinal endoscopy for evaluation of these symptoms. On endoscopy, the second part of duodenum appeared edematous with some luminal compromise. There was also presence of an opening in inferolateral wall of second part of duodenum, through which milky white caseous material was coming out [Figure 1]. After thorough washing, the discharge was continuous. Patient underwent contrast-enhanced computed tomography (CT) scan of the abdomen. It demonstrated large conglomerate of paraduodenal, celiac, para-aortic,

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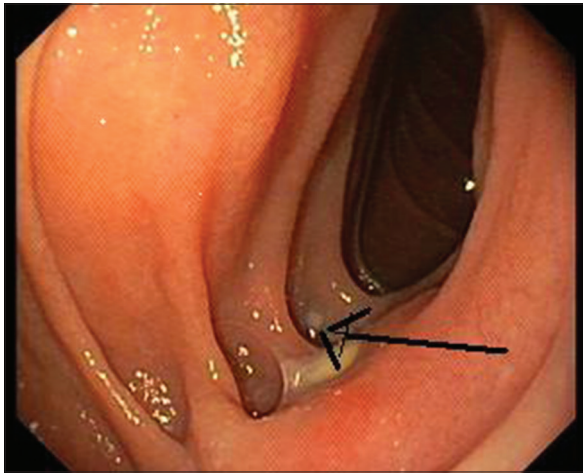
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peripancreatic, and retrocaval nodes with central necrosis. One of these nodes was also eroding into the second part of duodenum causing the fistulous opening [Figure 2]. Patient then underwent endoscopic ultrasound (EUS) which revealed the hypoechoic lymph nodes in paraduodenal, parapancreatic, and celiac axis. Fine needle aspiration cytology (FNAC) was taken from one of the paraduodenal nodes [Figure 3]. FNAC showed epithelioid granuloma with Langerhans giant cells suggestive of granulomatous lymphadenitis of tubercular etiology [Figure 4]. Patient was started on antituberculosis treatment and he responded well with better appetite and weight gain within the first month of starting treatment. He is currently on antituberculosis treatment and continues to be stable.

## Discussion

Abdominal tuberculosis is the sixth most common site of extrapulmonary tuberculosis.<sup>[1]</sup> The most common site of

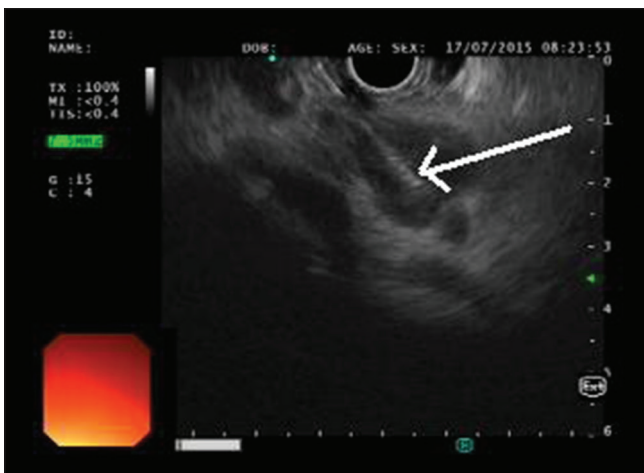
abdominal tuberculosis is ileocolic region.<sup>[2]</sup> Involvement of stomach and duodenum is uncommon and accounts for only 1–2% of cases of abdominal tuberculosis. Primary duodenal involvement in tuberculosis is uncommon even in endemic country like India. It can be intrinsic, extrinsic, or both.<sup>[3]</sup> Extrinsic form, which is more common, is usually secondary to the lymphadenopathy in the C-loop of the duodenum. This case reflects this extrinsic form of duodenal tuberculosis which is extremely rare. In the series by Puri *et al.*<sup>[4]</sup> of ten patients, significant narrowing of the duodenum was seen in 9 patients. Histological confirmation of granulomatous lymphadenitis was seen in 9 patients. No case of fistulous opening was seen in their series. Tubercular lymphadenopathy eroding into duodenum has been very rarely reported in literature. One case was reported in 2007 by Park *et al.*<sup>[5]</sup> Their case presented with duodenal fistula in the third part of the duodenum. The case responded to antitubercular medications. In our case, the clinical presentation, endoscopic image, and CT and EUS image along with



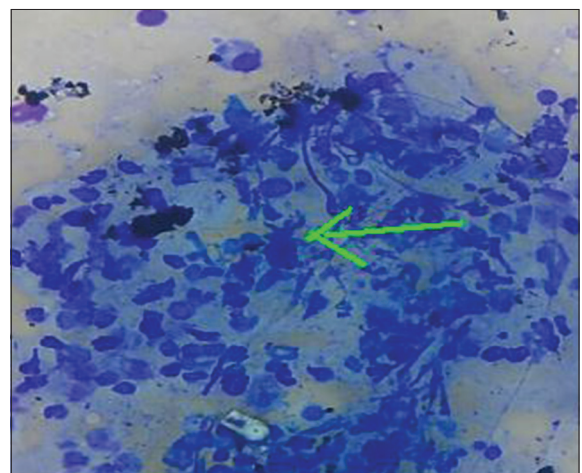
**Figure 1:** Endoscopic image showing the opening in inferolateral wall of the second part of duodenum with milky white caseous material coming out of it



**Figure 2:** Computed tomography abdomen (sagittal section) showing the enlarged paraduodenal lymph node eroding into the duodenal lumen



**Figure 3:** Endoscopic ultrasound image showing enlarged, hypoechoic lymph node along the inferomedial wall of second part of duodenum being sampled



**Figure 4:** Microscopic image of the fine needle aspiration of paraduodenal lymph node showing epithelioid granuloma with Langerhans giant cells suggestive of granulomatous lymphadenitis

the presence of epithelioid granulomas in FNAC strongly suggest the diagnosis of tuberculosis. The clinical response to antituberculous therapy only confirms the same. Hence, this case reports the rare possibility of extrinsic tubercular lymphadenopathy eroding into duodenum.

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#### **Conflicts of interest**

There are no conflicts of interest.

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