International Surgery Journal
Baskar AK et al. Int Surg J. 2025 Mar;12(3):459-461
http://www.ijsurgery.com
pISSN 2349-3305 | eISSN 2349-2902

DOI: https://dx.doi.org/10.18203/2349-2902.isj20250592

Case Report

Gastro-splenic fistula due to isolated splenic tuberculosis: an unusual case report

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Received: 03 January 2025
Accepted: 11 February 2025

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ABSTRACT

Gastrosplenic fistula is an uncommon condition, usually associated with splenic malignancies especially lymphomas. Few cases of gastrosplenic fistula are reported secondary to post traumatic splenic abscess, gastric ulcer, miliary tuberculosis. Isolated splenic tuberculosis is very rare. Gastrosplenic fistula due to isolated splenic tuberculosis is an extremely rare presentation. Here, we report a case of a 53-year-old man who presented with upper abdominal pain and fever. Computed tomography (CT) of abdomen showed multiple splenic abscess with splenic vein thrombosis. Upper gastrointestinal (GI) scopy showed fundal varies and submucosal nodular lesion at fundus. Endoscopic ultrasound showed splenic abscess probably infiltrating the fundus of stomach. He underwent open splenectomy with fistulous tract resection and pancreatic tail resection. Intraoperatively, the fistulous tract was identified at posterior aspect of fundus. The fistulous tract was excised and stomach edges were closed primarily. He recovered well without any complications. Histopathological examination showed splenic tuberculosis, and he was started on anti-tuberculosis treatment.

Keywords: Gastrosplenic fistula, Tuberculosis, Splenic abscess, Splenic tuberculosis

INTRODUCTION

Gastrosplenic fistula is a rare condition, often related to splenic or gastric malignancies especially lymphomas of spleen.[1] It may occur secondary to benign condition like splenic abscess, gastric ulcer and tuberculosis.[2-4] Only few cases of gastrosplenic fistula due to tuberculosis are reported in the literature. Isolated splenic tuberculosis is a very rare form of tuberculosis. Gastrosplenic fistula due to isolated tuberculous splenic abscess is an unusual presentation.

CASE REPORT

A 52-year-old male presented with the complaints of left upper quadrant abdominal pain with low-grade fever for 1 month. On physical examination, his pulse rate, blood pressure and respiratory rate were normal. The spleen is palpable on deep inspiration and tender. The contrast enhanced computed tomography (CECT) of abdomen showed an enlarged spleen with multiple abscesses with largest abscess of size 41×39 mm and splenic vein was thrombosed with multiple peripancreatic collaterals (Figure 1). The total white blood cells (WBC) count was 6700 cells/mm^3 with a differential count of 63% neutrophils. Extensive workup was done to look for source of abscess. The blood culture showed no growth. His echocardiogram and chest X-ray were normal. He had no evidence of immunosuppression.

His upper gastrointestinal (GI) endoscopy showed a submucosal smooth lesion at the fundus of the stomach with fundal varices (Figure 2). Endoscopic ultrasound (EUS) showed a hypoechoic lesion of size 3 cm communicating with the fundus of stomach (Figure 3). He was planned for surgery because of splenic abscess with sinistral portal hypertension. He received pneumococcal,

meningococcal, and haemophilus influenza vaccine 2 weeks before surgery.

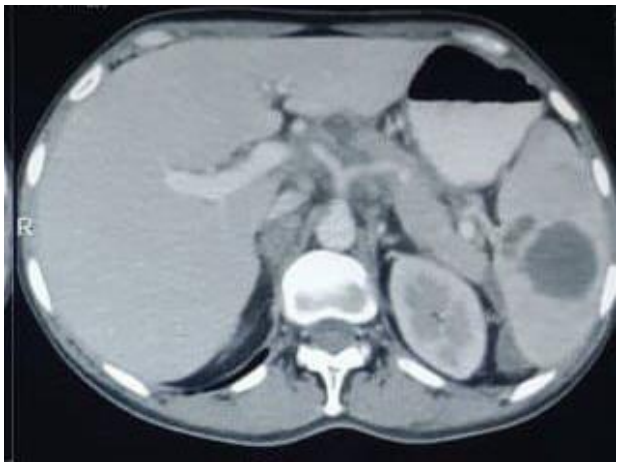

Figure 1: Contrast enhanced computed tomography of abdomen showing multiple splenic abscess.

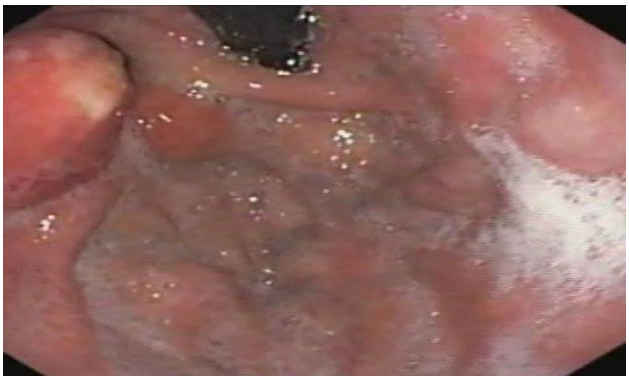

Figure 2: Upper GI endoscopy showing submucosal bulge at fundus on retroflexion.

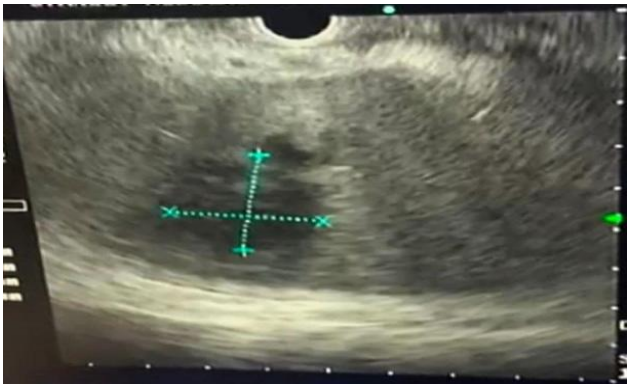

Figure 3: EUS showing hypoechoic lesion in spleen suggestive of abscess.

After proper evaluation, he underwent open splenectomy with fistulous tract resection and pancreatic tail resection. Intraoperatively, the fundus of the stomach was densely adherent to the spleen. The fistulous site at the posterior aspect of the fundus was identified and divided (Figure 4). The fistulous tract was excised and stomach edges were freshened and closed primarily in a single layer with 3-0 vicryl in interrupted fashion. The tail of the pancreas was resected as it was closely adherent to the hilum of spleen. The pancreatic stump was closed with 2-0 prolene.

The patient recovered well without any postoperative complications. The histopathology report was suggestive of splenic tuberculosis. His sputum acid-fast bacillus (AFB) was negative and his chest X-ray was normal. The chest physician's opinion was sought and he was started on anti-tubercular therapy.

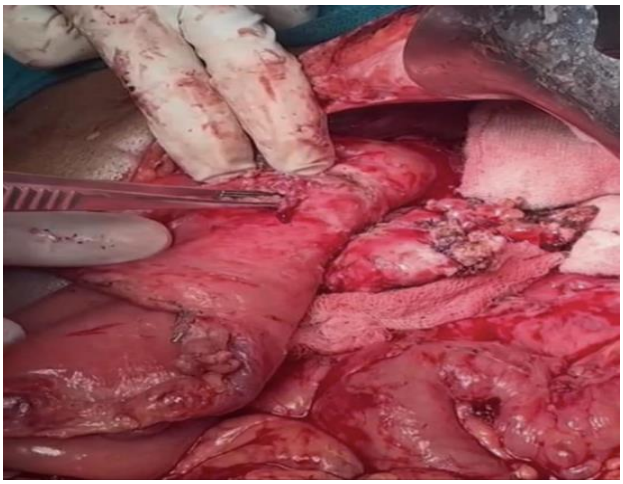

Figure 4: Intraoperative picture showing fistula site at posterior aspect of fundus of stomach.

DISCUSSION

Gastrosplenic fistula is an extremely rare complication of malignant as well as benign splenic and gastric etiologies. Lymphomas account for most of the cases of gastrosplenic fistula.[1] Other rare reported causes of gastrosplenic fistula are gastric adenocarcinoma, benign gastric ulcer, splenic abscess, Crohn's disease and tuberculosis.[2-4]

Gastrosplenic fistula associated with splenic abscess is an uncommon condition. The first case of gastrosplenic fistula due to splenic abscess was reported by Kryshtalskyj et al.[5] Ballas et al believed that in splenic abscess, the stomach gets adhered to diseased spleen due to inflammation and further erosions lead to penetration of gastric wall.[6] The clinical presentation depends on the underlying etiology and the most threatening complication is bleeding which can be massive and life-threatening.[7] The computed tomography (CT) of the abdomen is the investigation of choice and the pathognomic feature is contrast-filled tract between the stomach and spleen. Loss of fat plane between the spleen and stomach is noticed in cases where fistulous tract is not identified.[1] Upper GI endoscopy shows a classical finding of an ulcer in the fundus or greater curvature of the stomach in most cases. In a recent review, the fistulous tract was not visualised in 26% of the patients.

There are no uniform guidelines in the management of gastrosplenic fistula due to its rarity. Although there are reports of conservative management, most of the authors opted for resectional surgery in both malignant and benign etiology.[1,7,8] In a report by Leeds et al, a patient was diagnosed with diffuse B cell lymphoma in a histopathology examination.[9] In our case, the patient was diagnosed with tuberculosis of the spleen on histopathology. So, surgery is helpful in certain cases to identify the cause of the fistula and treat it accordingly.

CONCLUSION

Although it is rare, gastrosplenic fistula may cause life-threatening bleeding from the spleen. Surgery will be a better option in this uncommon condition to avoid life-threatening bleed and to identify the cause. This is a very rare clinical case of isolated tuberculous splenic abscess forming a gastrosplenic fistula.

Funding: No funding sources
Conflict of interest: None declared
Ethical approval: Not required

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Cite this article as: Baskar AK, Chandrabose AMJ, Lakshmanan A, Satyanesan J. Gastro-splenic fistula due to isolated splenic tuberculosis: an unusual case report. Int Surg J 2025;12:459-61.