



**Gastro-pleural fistula following Sleeve gastrectomy for GIST of stomach -
A Case report.**

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Abstract :

Gastro-pleural fistula is an uncommon complication following a number of conditions like prior pulmonary surgery, trauma, or malignancy. We report a case of gastro-pleural fistula following sleeve gastrectomy for GIST stomach. The patient developed a collection in the left pleural cavity communicating with the stomach. He underwent resection of the fistula site on the stomach remnant, small bowel resection and anastomosis along with left lower lobe pneumonectomy. He had an uneventful recovery. Histopathology of the resected lung showed evidence of tuberculosis and patient was started on anti tuberculous therapy.

Keyword : Gastro-pleural fistula, GIST, Sleeve gastrectomy, Tuberculosis.

Chest X ray PA view





Barium meal series CECT Abdomen

Case report: A 32-year-old man was admitted to our centre with complaints of left-sided chest pain. Seventeen months previously, he had undergone a sleeve gastrectomy for GIST stomach. A PA chest radiograph revealed a left-sided pleural collection and computed tomography (CECT) showed diffuse wall thickening noted in the body of the stomach remnant, with fistulous connection between the stomach remnant and left pleural cavity. Upper gastrointestinal endoscopy was normal. Barium meal follow-through showed the contrast-filled track extending into left chest. Needle aspiration of fluid from chest collection was purulent and positive for amylase. A laprotomy and left thoracotomy was done which showed a gastro-pleural fistula arising between the stomach remnant and the left lower lobe of lung with adherent jejunal loops. He underwent gastrotomy, excision of the fistula, jejunal resection and anastomosis and left lower lobe lobectomy. Post-operative histology of the resected specimen revealed evidence of tuberculosis in resected lung tissue. Patient was started on anti-tuberculous chemotherapy and patient made a good recovery.

Discussion:

Fistulation between the stomach and the pleural cavity through the diaphragm is rare, but has been described as a result of peptic ulceration [1], surgery [2, 3], trauma [3], and gastric malignancy.

Markowitz and Herter [6] first described gastro-pleural fistula in 1960. They described the causes of gastro-pleural fistula as intrathoracic perforation of the stomach in hiatus hernia, traumatic diaphragmatic hernia with perforation of the stomach, and intraperitoneal gastric perforation with erosion of a subphrenic abscess via the diaphragm [7]. Gastro-pleural fistula has been reported as a complication of pulmonary resection, trauma (especially due to traumatic diaphragmatic hernia), peptic ulcer disease, and malignancy [8]. Some case reports have indicated a predisposition to GPF after the oral intake of steroids or anti-inflammatory drugs, when the cause is gastric perforation [9]. According to a recent review [10], subphrenic pathologies less frequently lead to formation of a gastro-pleural fistula, generally due to diaphragmatic erosion. Supradiaphragmatic conditions, such as infections, intrathoracic operations, and fistulas due to procedures (forceful intercostal tube insertion or nasogastric tube placement after gastric adenocarcinoma resection) can also result in GPF [10]. The diagnosis of gastro-pleural fistula is usually made with contrast radiology, upper GI endoscopy, or at operation. The use of methylene blue as a marker, and the testing of the pleural fluid for pH or bile salts have been suggested as easy bedside tests for the presence of a gastro-pleural fistula in ill patients [3]. The prognosis of fistulas from the upper GI tract to the pleura seems to depend upon the delay from diagnosis to surgical intervention [4, 5]. It is important, therefore, to consider this diagnosis early in the patient's management.

To our knowledge, this is the first reported case of a gastro-pleural fistula presenting after sleeve gastrectomy for GIST stomach. It is also the first time tuberculosis has been found as an associated condition with gastropleural fistula. In conclusion, sleeve gastrectomy is a rare cause for gastro pleural fistula. Early surgical intervention is rewarded by good result.

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