ISSN: 3033-3326

Case Report

Journal of Chemotherapy and Cancer Research

A Rare Case of Post-Operative Bowel Herniation into the Left Pleural Cavity Following Laparoscopic Total Gastrectomy

Batbileg Bat-ireedui*, Demberel Baasanjav, Lkhagvadulam Ganbaatar, Gantogtoh Ganbold, Nasanbat Sharavjamts, Zorig Dungerdorj and Baatarsuren Batmunkh

Department of Surgery, Mongolia Japan Hospital, Mongolia

***Corresponding author**
Baatarsuren Batmunkh, Department of Surgery, Mongolia Japan Hospital, Mongolia.

Received: December 14, 2025; **Accepted:** December 23, 2025; **Published:** December 30, 2025

ABSTRACT
Objectives: To present a rare case of postoperative diaphragmatic hernia following laparoscopic total gastrectomy for gastric carcinoma, managed with pleural-EVAC drainage and laparoscopic surgical repair in a resource-limited hospital.

Keywords: Left Pleural Intestinal Hernia, Postoperative Complication of Gastrectomy

Introduction

A left pleural intestinal hernia (specifically, an iatrogenic diaphragmatic or hiatal hernia with small bowel herniation into the left chest cavity) is a rare, but serious potential postoperative complication of laparoscopic gastrectomy. It requires urgent diagnosis and surgical intervention due to the risk of bowel strangulation and necrosis. [1,2]

Postoperative internal hernias occur in 0.14% to 9% of cases, depending on the procedure type (higher in laparoscopic vs. open). Intrathoracic herniation (into the chest cavity) is even less common [1].

Symptoms can be vague, but typically involve signs of respiratory and/or digestive distress [2].

Computed Tomography (CT) scan with contrast is the primary diagnostic tool to confirm the presence of herniated bowel in the pleural space and assess for complications like ischemia or perforation [3].

Case Report

A 38-year-old female underwent laparoscopic total gastrectomy with Roux-en-Y reconstruction, D2 lymphadenectomy for poorly cohesive carcinoma of the gastric cardia (C16.0). During esophageal mobilization, the left pleura was inadvertently opened (0.5cm). Initial postoperative recovery was unremarkable. On postoperative day 1, the patient developed dyspnea, pleuritic chest pain, and mild hypoxia (SpO_2 91–93%). Imaging revealed a left diaphragmatic hernia with herniation of small bowel loops into the thoracic cavity. Due to worsening symptoms and the risk of visceral strangulation, laparoscopic diaphragmatic hernia repair was performed. A 5 cm defect was identified and closed using non-absorbable interrupted polyester sutures. During the procedure, a pleural EVAC system (vacuum-assisted chest drainage) was inserted to manage intraoperative pleural breach and residual air/fluid. Postoperatively, the patient required CPAP support (PEEP 5 cmH_2O, FiO_2 0.40), analgesia, and broad-spectrum intravenous antibiotics (Ceftriaxone and Metronidazole). The pleural drainage resolved gradually, and respiratory status improved over the following days. The patient was discharged in stable condition and is under ongoing outpatient follow-up, with no signs of recurrence or complications to date.

Citation: Batbileg Bat-ireedui, Demberel Baasanjav, Lkhagvadulam Ganbaatar, Gantogtoh Ganbold, Nasanbat Sharavjamts, et al. A Rare Case of Post-Operative Bowel Herniation into the Left Pleural Cavity Following Laparoscopic Total Gastrectomy. J Chem Can Res. 2025. 3(4): 1-2.
DOI: doi.org/10.61440/JCCR.2025.v3.31

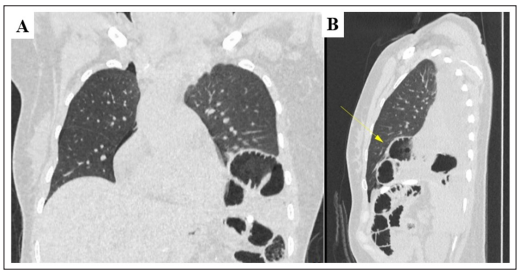

Figure 1: CT Images of A large left hemidiaphragm defect, with abdominal contents including the stomach and small bowel loops almost filling up the left hemithorax with resultant mediastinal shift to the right. (A - Coronal C+ portal venous phase, B - Sagittal C+ portal venous phase)

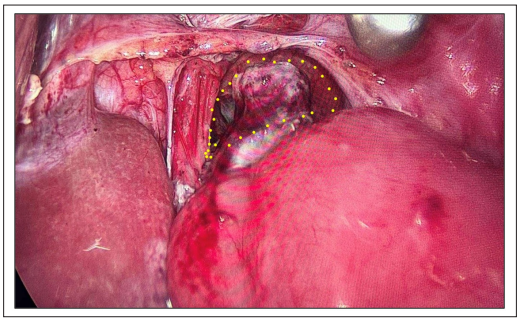

Figure 2: Re Operation (Cruroplasty) A 5 cm defect (yellow dot) was identified and closed using non-absorbable interrupted polyester sutures.

Diagnosis

Based on clinical presentation, imaging findings examination, the diagnosis of left pleural intestinal hernia postoperative complication of laparoscopic gastrectomy. It requires urgent diagnosis and surgical intervention due to the risk of bowel strangulation and necrosis.

Outcome

Diaphragmatic hernia is a rare but serious postoperative complication following laparoscopic total gastrectomy, particularly in cases involving pleural injury. This case illustrates the value of early imaging, pleural EVAC placement, CPAP support, and timely surgical repair. In resource-constrained environments, structured multidisciplinary care can effectively manage complex thoracoabdominal complications and optimize outcomes.

References

1. Wang NY, Tsai CY, Liu YY, Chen IS, Ho KH. Incarcerated Hiatal Hernia with Perforation after Laparoscopic Total Gastrectomy with Roux-en-Y Reconstruction: a Case Report. J Gastric Cancer. 2019. 19: 132-137.
2. Tashiro Y, Murakami M, Otsuka K, Saito K, Saito A, et al. Intrathoracic Hernia after Total Gastrectomy. Case Rep Gastroenterol. 2016. 10: 1-6.
3. Mestre A, Ferreira Simões A, Marino F, Gonçalves Pereira J. Passing Through a Hole: Delayed Diaphragmatic Hernia After Cytoreductive Surgery. Cureus. 2021. 13: e20314.