



GASTROPLEURAL FISTULA

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ABSTRACT

Video Assisted Thoracoscopic Surgery [VATS] is a commonly performed procedure in pediatric patients. As compared to open thoracotomy it is relatively safe, pain free, associated with early ambulation and less morbidity. However associated complications include bleeding, infection and broncho-pulmonary air leaks. We report a rare complication associated with VATS for empyema after a bull horn injury. Post operative complication was development of gastro pleural fistula which was repaired by open thoracotomy. Post operative recovery was uneventful.

KEYWORDS :**Case report-**

11 year boy presented with continuous leak of yellow colored fluid mixed with food particles from intercostal drain 6 days after VATS surgery.

Patient had bull horn injury over left lateral aspect of the sternum 2 months ago. Intercostal drain was inserted for pneumothorax and VATS was performed in view of empyema. Postoperatively intercostal drain started draining fluid with food particles about 800 to 900 cc per day. The patient was then referred to us as a case of suspected esophageal perforation with leak.

On clinical examination the patient was malnourished with skin excoriation at the site of ICD insertion. X-ray chest showed left lower lobe collapse with blunting of left costo-phrenic and cardio-phrenic angles. CT thorax and abdomen (plain and contrast) was suggestive of a large perforation at the fundus of the stomach with leak of gastric contents inside the thoracic cavity suggestive of a gastro-pleural fistula (Fig 1).

Routine haematological investigations were normal. Left thoracotomy was done. There was evidence of dense pleural thickening with near complete collapse of left lung. A rent was seen in the dome of diaphragm with a large gastro-pleural fistula, about 2x2 cm in size. The fundus of the stomach was separated from the diaphragm and sutured in two layers. Diaphragmatic rent was closed.

Postoperative recovery was surgery uneventful. Post-operative chest x-ray showed good lung expansion. ICD was removed on post-operative day 7 and patient was discharged on day 10.

DISCUSSION-

Gastro pleural fistulas are very rare in pediatric age group.

Etiopathogenesis –

Include –

- Perforation of intrathoracic stomach
- Trauma, with or without diaphragmatic injury
- Subphrenic abscess eroding diaphragm.
- Gastric bypass surgery
- Pulmonary Resection
- Splenectomy for splenic abscess
- Erosion of gastric ulcer.
- Complication of empyema thoracis

Malpositioned ICDs are sometimes reported as the causative factor. Malpositioned intercostal drains are reported in liver, peritoneal space, heart, spleen, subclavian vessels, colon, esophagus and inferior vena cava.^[1,4,7,8]

Video assisted thoracoscopic surgeries are less invasive and promising

procedures. Various complications related to port placements have been reported, though rare in incidence. VATS associated complications are bleeding, minor and major bronchopulmonary leaks, diaphragmatic rupture with or without hollow viscus perforation.^[1,2,3,5,6]

There are sporadic reports of gastropleural fistulas occurring after pulmonary surgeries like lobectomy, pneumonectomy, blunt thoracic trauma, empyema and abdominal surgeries like splenectomy, gastrectomy and hepatic resections^[10,11]

All reported cases of correction of gastro pleural fistulas mention trans-

abdominal approach but we preferred thoracic approach as patient had associated left sided lung collapse with thick pleural peel. Post-operative course was uneventful.

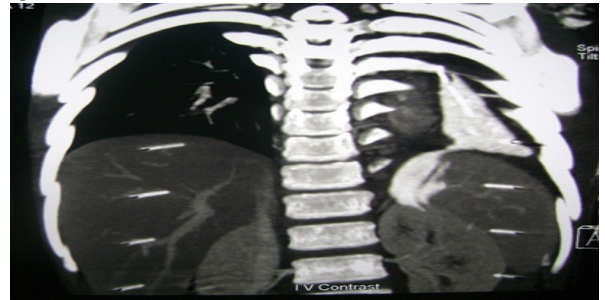


Figure 1 : CT thorax showing gastropleural fistula

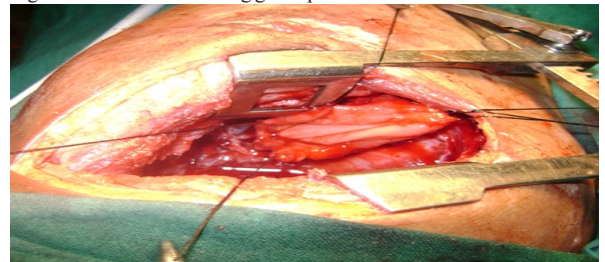


Figure 2: Fistulous tract with diaphragmatic rent

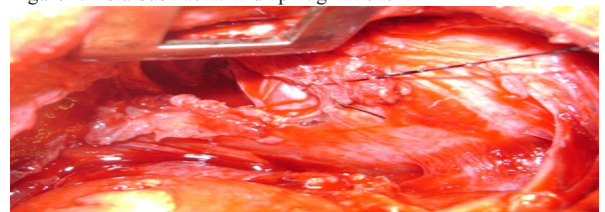


Figure 3: Suturing the diaphragmatic rent

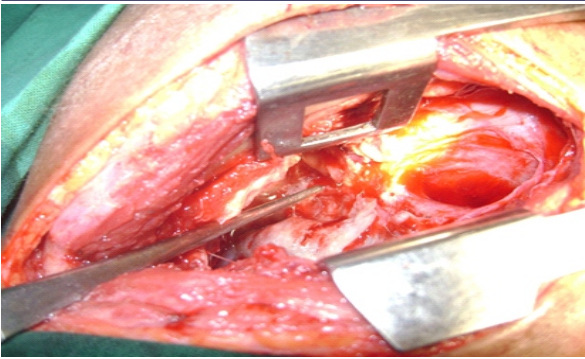


Figure 4: Gastric rent

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