

## Case Report

### A Challenging Case of Chest Discomfort and Breathlessness

S Arulraj<sup>1</sup>, Ramasubramanian<sup>2</sup>, Sundaralingam<sup>3</sup>, Aarathy Kannan<sup>4</sup>, Chandrakumar<sup>5</sup>, Manikandan<sup>5</sup>, M D Faizur Rahman<sup>6</sup>

Esophagopleural Fistula (EPF) presents with some nonspecific symptoms which may lead you to other provisional diagnosis first but a close workup and considering every differential diagnosis very carefully will take you to the final diagnosis. The unfamiliarity of this condition, along with non-specific clinical presentations and elusive imaging findings makes it a diagnostic challenge. The causes of EPF may be due to Post Pneumonectomy for any pathological condition of lung, Oesophageal Malignancy or Carcinoma lung. Benign causes are rare and can be due to infection or trauma<sup>1</sup>. Among infections Tuberculosis is the most common cause for Esophagopleural Fistula. We hereby describe a case of 45 years old male with an Esophagopleural Fistula on left side that has been treated conservatively and recovered.

[J Indian Med Assoc 2021; 119(12): 76-7]

**Key words :** Esophagopleural Fistula, Tuberculosis, Pleural effusion.

**E**PF is one of the most common form of Esophagorespiratory Fistula that occur secondary to oesophageal perforation. The perforation most commonly arises due to Esophagoscopy examination, remaining being foreign bodies (Fishbone), Carcinoma, gastric intubation, Chest trauma and Chest operations. But rarely spontaneous rupture of esophagus (Boerhaave's Syndrome) may occur due to sudden rise of intraesophageal pressure (by contraction of cricopharyngeus muscle and closing of pyloric sphincter) associated with forceful vomiting or retching, classically after overeating or excessive drinking. A minor variety (Mallory Weiss Tears) are mucosal tears caused by forceful or long-term vomiting, retching or coughing and usually heal spontaneously. Characteristically, this spontaneous rupture almost always involves the lower esophagus just above the diaphragm<sup>2</sup>.

#### CASE REPORT

A 45 years old male patient presented to our emergency with complaints of left sided chest pain associated with breathlessness since 2 weeks and two episodes of Hematemesis. The patient was a binge Alcoholic since last few years. There was no history of

Sundaram Arulraj Hospitals, Thoothukudi, Tamil Nadu 628002

<sup>1</sup>MD, PhD, FRCP(G), FRCP(L), MBA, Professor and Head, Chief Physician & Intensivist, Department of Internal Medicine and Corresponding Author

<sup>2</sup>DM (Gastro), Professor, Consultant Medical Gastroenterologist

<sup>3</sup>DTCD, Consultant Pulmonologist

<sup>4</sup>MD, Dip Diab, Consultant Physician & Dialectologist

<sup>5</sup>DNB (General Medicine), Postgraduate Trainee, Department of Internal Medicine

<sup>5</sup>DNB (General Medicine), Postgraduate Trainee, Department of Internal Medicine

<sup>6</sup>MD, Faizur Rahman, DNB (General Medicine), Postgraduate Trainee, Department of Internal Medicine

Received on : 14/09/2021

Accepted on : 23/09/2021

#### Editor's Comment :

- Every Breathlessness is not Cardio respiratory can be Oesophageal Perforation too.
- All pleural effusion not due to TB may be due to Oesophago pleural Fistula too.
- Oesophageal ulcer can be Tuberculosis too.

any endoscopic intervention, tuberculosis or any type of dysphagia or breathlessness before.

The treatment of the patient was started considering upper GI bleed secondary to? Mallory weiss tear? Boerhaave Syndrome? Variceal bleed as provisional diagnosis

The treatment has been started with Vitamin K, Antifibrinolytics, Proton pump inhibitor, Stomach wash with cold water through Ryles tube and other supportive care.

After that patient was taken up for the upper GI Endoscopy, which reveals Excavating ulcer lower oesophagus with signs of active bleed.



Upper GI bleed stops but still the chest discomfort and breathlessness persists.

X-ray chest of the patient was showing left sided pleural effusion for that pleural tapping was tried but was unsuccessful, as only dry tap we found,

Then an Ultrasound guided tapping is planned which shows multiple loculated pockets of collection, which were drained individually under Ultrasound guidance.

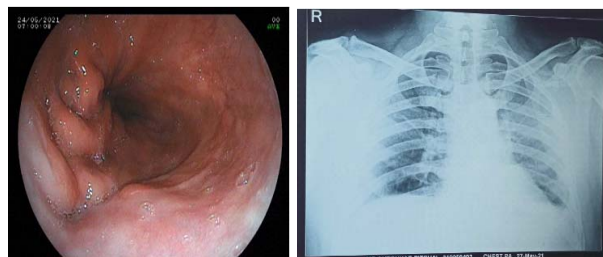
Pleural fluid sent for analysis in which MTB was detected through CBNAAT and patient was started on Antitubercular medications.

But still the chest comfort persists....

Cardiac evaluation was done to see if any ischemic change in heart, ECG doesn't show any ischemic changes.

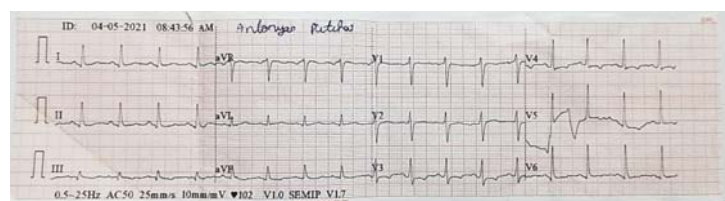


Upper GI endoscopy repeated which shows a healed ulcer which was detected earlier.



## DISCUSSION

It is very difficult to diagnose the EPF as clinical signs and symptoms are non-specific. An injury to oesophagus should be considered if patient presented with Retrosternal chest pain, Dysphagia, Dyspnoea, Fever especially when patient gives previous history of instrumentation or Surgery like Pneumonectomy<sup>3</sup>. but in this case

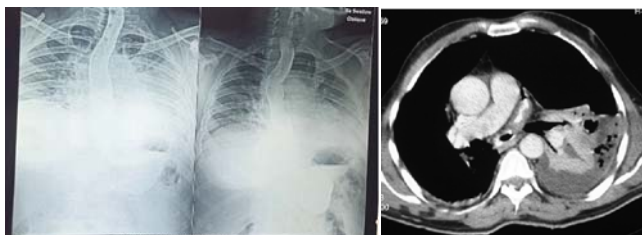


ECHO also doesn't show any regional wall motion abnormality, Cardiac markers values were also within the normal limits.

### Key Findings :

- Binge Alcoholic
- Hematemesis
- Lower Oesophageal Ulcer
- Left Sided Pleural Effusion – Tuberculous etiology

By linking all these key findings an oesophageal leak was suspected, for that barium swallow X-ray was taken, but x ray was not conclusive to any leak. To confirm we tried for oral contrast CT chest, which shows a small defect with contrast leak seen at the left lateral wall of lower oesophagus just above the GE junction- Oesophageo Pleural Fistula likely with left sided pleural effusion.



Since his pleural fluid aspirate report suggestive of Tuberculous etiology – we suspected lower esophageal Tuberculous ulcer hence undergone repeat UGI scopy, biopsy taken and sent for detection of Tuberculosis with TB – RTPCR

Biopsy report came as Lower oesophageal TB ulcer with superadded Candidiasis. In view of the findings patient continued with ATT and antifungal started.

For next one week Ryles tube feeding with high protein diet was continued and Follow up X-ray showed minimal effusion and clearance of consolidation patch. Patient showed good improvement on Antitubercular drugs so oral diet started.

there was no such history and leak was also very small which could not be detected in Barium swallow. This is the reason that is why this type of EPF could be missed. Rarely EPF heals spontaneously, oesophageal leaks are associated with very high mortality so it should be treated as soon as possible. Therapeutic options include conservative management with antibiotics, ATT with cessation of oral intake, surgical repair or resection. Endoscopic intervention may be tried with clip, fibrin glue, metallic stents and suturing<sup>4,5</sup>.

### Key Notes :

- EPF with left sided pleural effusion - tubercular aetiology has been managed medically and recovered well.
- EPF is an uncommon entity with nonspecific clinical presentation.
- Gastroscopy is the key.
- CECT of chest is a very useful modality for early diagnosis and management of EPF.
- It should be performed in patients with pleural effusion presenting with nonspecific clinical symptoms before any intervention or drainage.

## REFERENCES

- 1 Wychulis AR, Ellis FH, Jr, Andersen HA — Acquired nonmalignant esophagotracheobronchial fistula. Report of 36 cases. *JAMA* 1966; **196**: 117-22. [PubMed] [Google Scholar]
- 2 Liu PS, Levine MS, Torigian DA— Esophagopleural fistula secondary to esophageal wall ballooning and thinning after pneumonectomy: Findings on chest CT and esophagography. *AJR Am J Roentgenol* 2006; **186**: 1627-9. [PubMed] [Google Scholar]
- 3 Takaro T, Walkup HE, Okano T — Esophagopleural fistula as a complication of thoracic surgery. A collective view. *J Thorac Cardiovasc Surg* 1960; **40**: 179-93. [PubMed] [Google Scholar]
- 4 Michel L, Grillo HC, Malt RA— Operative and nonoperative management of esophageal perforation. *Ann Surg* 1981; **194**: 57-63.
- 5 Ghanem N, Althoefer C, Springer O, Furtwangler A, Kotter E, Schafer O, *et al* — Radiological findings in Boerhaave's Syndrome. *Emerg Radiol* 2003; **10**: 8-13.