

BOERHAAVE SYNDROME

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CHIEF COMPLAINTS

77 year-old male, Smoker, Hypertensive

Presented with : -

Breathlessness for 6 days

Chest pain for 6 days

Cough for 5 days

HOPI:

1. BREATHLESSNESS - Acute in onset, non progressive of MMRC grade 1, associated with central chest pain
2. Cough - Dry in nature

No history of fever, hemoptysis, wheezing.

On enquiry, patient gave the history of bouts of severe vomiting and retching 6 days back.

PAST HISTORY

- **History suggestive of COPD, and was on irregular treatment with Inhalers and oral bronchodilator.**
- **No history of DM, CAD, PTB**

Clinical Examination

•General Physical Examination : WNL

•Vitals :-

- Temp. : 98.1⁰ F
- PR : 92 bpm
- RR : 18 breaths/min
- BP : 120/70 mm Hg
- SpO₂ : 97% on room air

Local examination

Surgical emphysema present around the neck and extending to anterior chest wall

CLINICAL EXAMINATION.....contd

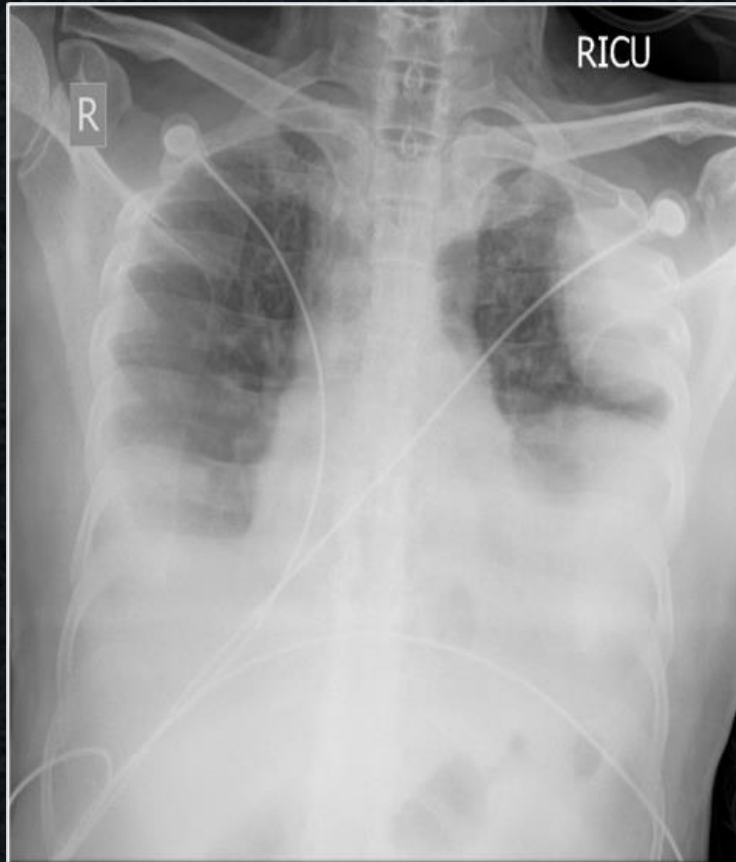
- **R/S:** *Intensity of breath sound decreased b/l ISA, IAA*
- **CVS:** *Crunching sound synchronous with heart beat*
- **P/A :** Soft, non tender, no organomegaly; bowel sounds normal
- **CNS :** No focal neurological deficit

INVESTIGATIONS

LABORATORY PARAMETERS

Hb	15.2 g/dL	PT,INR	11.3, 0.9
TLC	9600/mic.L	apTT	24
Platelet	207,000/mic/L	T.Bil	1.96 mg/dL
Blood Urea	51 mg/dL	SGOT	12
Creat	0.91 mg/dL	SGPT	22
Sr. Proteins	4.8 g/dL	ALP	46

CHEST RADIOGRAPH



BILATERAL LOCULATED PLEURAL
EFFUSION

USG THORAX

BILATERAL LOCULATED PLEURAL EFFUSION LT>RT

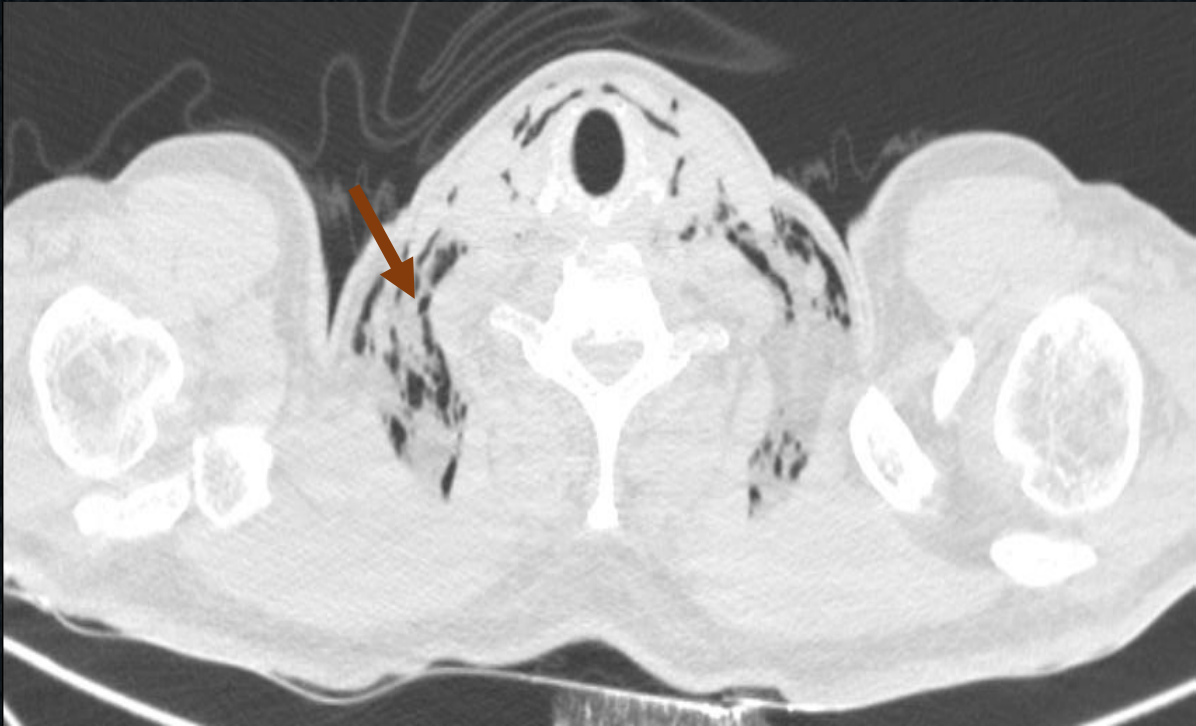
BILATERAL DIAGNOSTIC THORACOCENTESIS DONE

NEUTROPHILIC EXUDATIVE

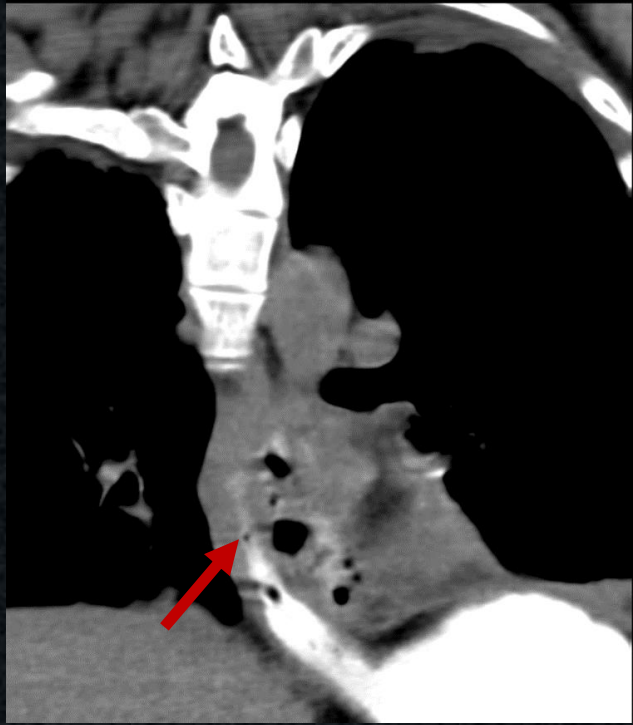
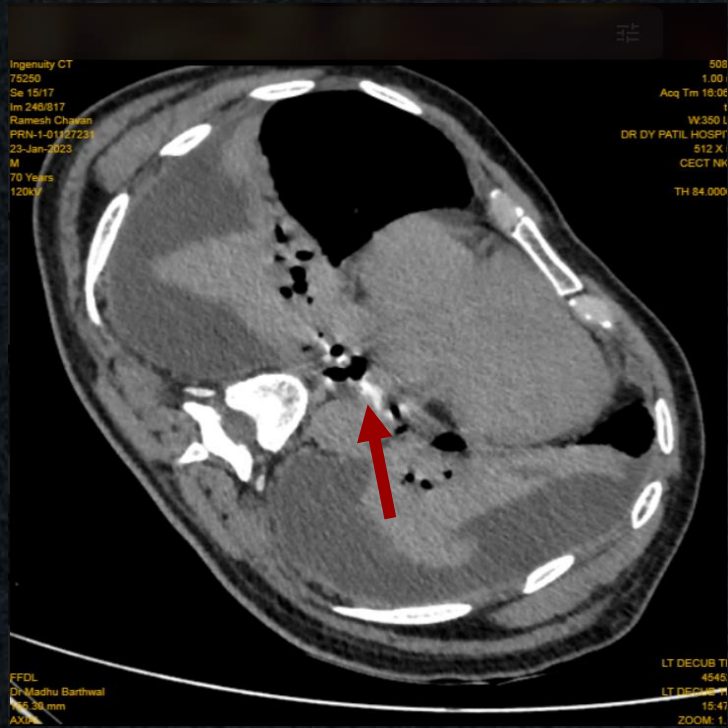
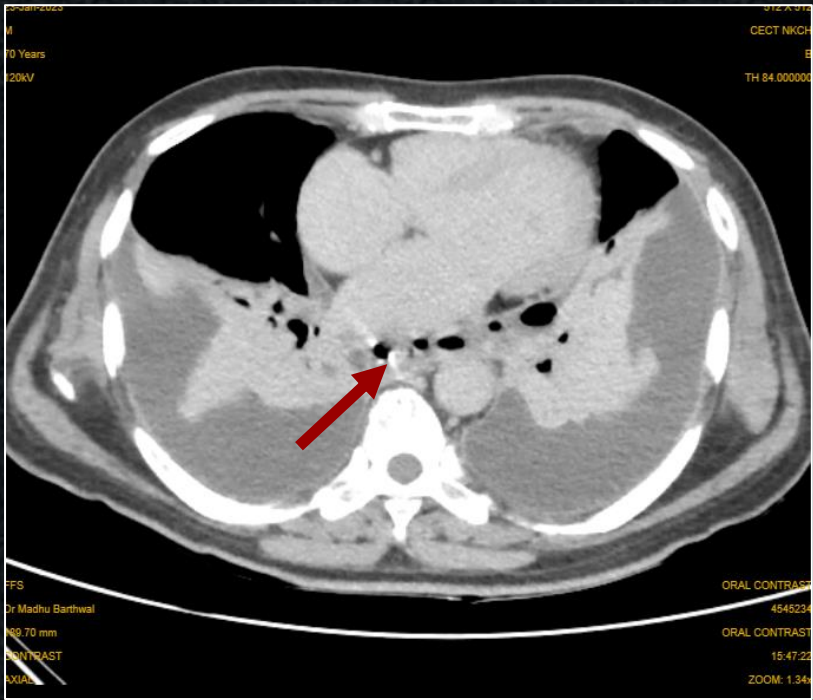
- GRAM STAIN, ZN STAIN, C AND S : *NEGATIVE*
- CBNAAT: *NEGATIVE*
- AMYLASE LIPASE : *WNL*
- *ADA: 30IU/L*

Investigations

CECT NECK AND THORAX



ORAL CONTRAST STUDY



HISTORICALLY

CLINICAL EXAMINATION

RADIOLOGICAL



BOERHAAVE SYNDROME

***MEDICAL AND SURGICAL GASTROENTEROLOGY
CONSULTATION TAKEN***

MANAGEMENT

- NBM, Total Parenteral Nutrition.
- Broad spectrum antibiotics and analgesics.

Bilateral tube thoracostomy and drained 2000 ml of straw colored pleural fluid.



BEFORE



AFTER

One cycle of IPFT and drained approximately 1000ml of fluid on both side



Before IPFT



After IPFT

COURSE IN THE HOSPITAL

Patient was continued on TPN and antibiotics for 8 days

CT contrast neck and chest was repeated which showed:

- 1. Decreased extravasation of contrast and small fluid collection with the air**
- 2. Complete resolution of subcutaneous and deep neck emphysema**
- 3. Significant reduction in the size of pleural effusion.**

COURSE IN THE HOSPITAL.....contd

- **Barium swallow study was done after 9 days which showed:**
 - 1. There was no leakage of contrast into the lung or mediastinum.**
 - 2. Pseudo tract of esophagus posteriorly in the lower third of esophagus.**

COURSE IN THE HOSPITAL.....contd

UPPER GI ENDOSCOPY



**LEFT POSTEROLATERAL DISTAL ESOPHAGUS
SHOWED PUS POINT**

NASO-JEJUNAL FEEDING FOR 4-6 WEEK

BOERHAAVE SYNDROME

In 1724, Dr Herman Boerhaave described the spontaneous transmural rupture of the oesophagus.

99% of rupture occur in the distal esophagus with more than two third on the left side.

The site and severity of an esophageal rupture dictate the presentation.

UPPER ESOPHAGEAL

PERFORATION



**Chest pain, dysphagia,
odynophagia, nausea,
vomiting, hoarseness or
aphonia**

LOWER ESOPHAGEAL

PERFORATION



**Abdominal pain, pneumothorax,
hydropneumothorax,
pneumomediastinum**

Subcutaneous emphysema is present in at least 30% of patients.

There is a range of finding including pneumomediastinum, mediastinal widening, pleural effusion, pneumothorax, hydropneumothorax or pneumoperitoneum.

Perforation can be confirmed by esophageal contrast study using gastrograffin.

MANAGEMENT

FEATURES OF SEPSIS

CLINICAL DETERIORATION



SURGICAL REPAIR

Conservative management is applicable when:

1. The perforation is already 5 days old
2. There is no signs of sepsis
3. Esophageal barium study show a wide mouthened cavity draining freely back into esophagus
4. The pleural space is not contaminated

Rare disease

CASE REPORT

Against all odds. Conservative management of Boerhaave's syndrome

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SUMMARY

Spontaneous oesophageal perforation or Boerhaave's syndrome is a life-threatening condition that usually requires early diagnosis and early surgical management. A 79-year-old man presented to the accident and emergency department with an ischaemic left big toe. He reported a 2-week history of worsening symptoms and a claudication distance in his left leg of 20–30 m. Three days post-revascularisation of the leg, the patient reported chest pain radiating to the back. CT angiography of the aorta indicated Boerhaave's syndrome. Following 35 days of conservative management in the intensive care unit and high dependency unit, the patient was stepped down to a surgical ward. A water-soluble contrast study demonstrated minimal leak through the perforated oesophagus. The patient was started on oral intake, which was well tolerated. This case highlights that conservative management may be appropriate.

with a respiratory rate of 28 breaths per minute, saturating at 92% on 2 L. He was haemodynamically stable with nil radial–radial/femoral delay. There was no evidence of surgical emphysema.

INVESTIGATIONS

Bloods: haemoglobin 15.9 g/L, platelet $134 \times 10^9/L$, white cell count 9.2 mmol/L, urea 4.8 mmol/L, creatinine 91 $\mu\text{mol/L}$, troponin negative. ECG showed ST segment depression in leads V5–V6 and was started on acute coronary syndrome protocol. Chest X-ray showed left basal consolidation with pleural fluid. The patient underwent an urgent CT angiography of the aorta, which showed extensive gas tracking up into the superior mediastinum. In addition, the oesophagus was dilated with a defect inferiorly in the left side of the oesophagus. A small pleural effusion and left basal consolidation were also noted (see above). The CT scan did



ELSEVIER


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Scientific paper

Boerhaave syndrome: Successful conservative management in three patients with late presentation ☆

Tom D. Ivey MD¹ , David A. Simonowitz MD¹, David H. Dillard MD¹, Donald W. Miller Jr. MD¹

CLINICAL PEARLS

TRANSMURAL RUPTURE OF OESOPHAGUS WITH PERFORATION RESULTING FROM THE SUDDEN INCREASE IN INTRAOESOPHAGEAL PRESSURE.

EARLY SUSPICIOUS AND DIAGNOSIS USING ORAL CONTRAST CT IS PARAMOUNT

ALTHOUGH SURGICAL MANAGEMENT IS THE PRIMARY MODALITY, CONSERVATIVE MANAGEMENT CAN BE APPLICABLE IN MINORITY OF PATIENT AS IN OUR CASE

ACKNOWLEDGEMENT

- DEPARTMENT OF RADIOLOGICAL DIAGNOSIS
- DEPARTMENT OF MEDICAL GASTROENTEROLOGY
- DEPARTMENT OF SURGICAL GASTROENTEROLOGY

THANK YOU.....