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Weight Goes Up, Esophagus Pops: A Case of Boerhaave's Syndrome in a Weightlifter Complicated by Empyema and Shock That Was Managed by Esophageal Endoluminal Vacuum-Assisted Therapy

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Introduction

➢Boerhaave's Syndrome (BS) is a transmural rupture of esophagus from sudden increase in intraluminal pressure.

➢It classically presents with vomiting, chest pain and subcutaneous emphysema, which is not always present.

➢It is potentially lethal if not diagnosed in a timely manner.

Case Description

➢A 25 years-old-man was transferred with a concern for esophageal rupture from an outside facility where he presented after loss of consciousness in the gym associated with dyspnea.

➢CXR revealed tension pneumothorax relieved by chest tube placement.

➢Given further deterioration in clinical status with empyema and new complain of epigastric pain, CT scan was performed that revealed possible fistula vs esophageal tear.

➢He was then transferred to us for management of esophageal rupture complicated by empyema.

➢Barium esophagram revealed esophageal perforation at left posterior margin proximal to GE junction.

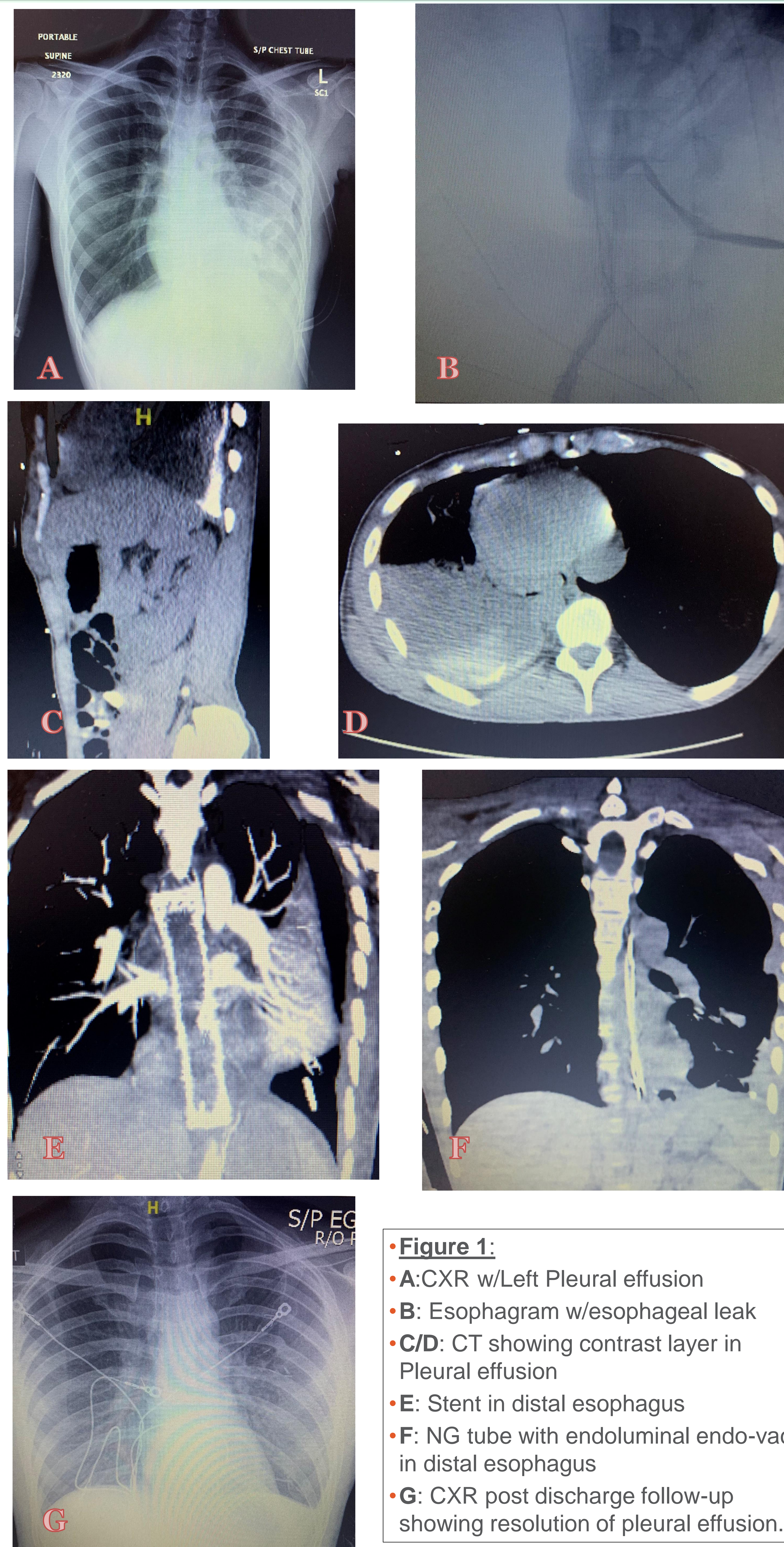
➢He underwent left thoracotomy with closure of perforation with pleural flap. Repeat esophagram was negative for leak.

➢His post operative course was complicated by hemorrhagic shock and he had an urgent EGD that was limited due to hematoma.

➢Exploratory laparotomy with oversewing of the mucosal ulceration were done urgently.

➢Due to poor esophageal healing and continued acute blood loss anemia requiring multiple transfusion, an esophageal endoluminal vacuum (Endo-Vac) was placed.

➢After multiple Endo-Vac exchanges, the perforation started to heal. After almost 3 months, he survived this complicated case of BS and was discharged home.



•Figure 1:
•A:CXR w/Left Pleural effusion
•B: Esophagram w/esophageal leak
•C/D: CT showing contrast layer in Pleural effusion
•E: Stent in distal esophagus
•F: NG tube with endoluminal endo-vac in distal esophagus
•G: CXR post discharge follow-up showing resolution of pleural effusion.

Discussion

➢BS management ranges from conservative to endoscopic to surgical interventions.
➢Its nonspecific symptoms could delay diagnosis leading to mortality as high as 40%.

➢Our patient diagnosis was delayed due to frame bias of pneumothorax leading to a complicated course.
➢Our case highlights the importance of multidisciplinary management that involved surgery, gastroenterology, infectious disease, ICU and radiology.

➢It shines light on the Endo-Vac therapy which was first reported in 2008 for anastomotic leak management. It has since been used for multiple GI pathologies.
➢It is minimally invasive and has reported success rate as high as 80-90%. It is one of the promising intervention for management of esophageal perforation and fistula.

➢Research with large number of patients is lacking to evaluate the efficacy and success of this promising alternative therapy.

➢Our case highlights endo-vac successful role in management of a complicated esophageal rupture case.
➢It also highlights the role of timely and strategic management by a multidisciplinary team for a better outcome for the patient.

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