Poster No. 128

HIGH PRESSURE OVERLOAD: RARE CASE OF PLEURAL EFFUSION DUE TO BOERHAAVE SYNDROME

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INTRODUCTION

Hermann Boerhaave first describes Boerhaave syndrome in 1972, after a Holland admiral developed vomiting and left side chest pain after a large meal. It is a rare disease with high mortality typically related to the Mackler triad of vomiting, chest pain, and subcutaneous emphysema.

CASE REPORT

A 40-year-old non-alcoholic drinker but a chronic smoker gentleman presented with a two-day history of unremitting vomiting and epigastric pain that only improves occasionally with anti-emetic.

Upon arrival, he was normotensive but tachycardic with a heart rate of 130 beats per minute; his respiratory rate is 30 breaths per minute and saturating well under the non-breather mask. On examination, he looks septic-looking with good perfusion. He was able to converse well under a high-flow mask. On systemic examination, abdomen was tender at the epigastric region with a pain score of 9/10. Lung sound is reduced over the left side, with subcutaneous emphysema felt on the left lower neck.

Plain chest X-ray showed left hydropneumothorax, pleural effusion, and suspicious of mediastinal air (figure 1). Blood investigations revealed a septic parameter. He underwent Computerized Tomography (CT) scan and result showed circumferential mural thickening of the entire thoracic esophagus until gastro-esophagus junction associated with massive para esophageal air pocket with suspicious of mucosal tear (figure 2).

Subsequently, he was intubated for impending respiratory collapse .A left chest tube was inserted and drain a total of approximately 2L of gastric content. He was taken care under the intensive care unit and sent to Tertiary Hospital with Upper Gastrointestinal subspeciality for esophageal stenting. He was discharged well after two months postoperatively.

DISSCUSION

A simple daily symptom such as vomit and abdominal pain can sometimes carry a worrisome and fatal outcome, if not adequately intervened. The typical presentation can mimic many rare diseases, hence easily misdiagnosed and often challenge physicians, especially in the emergency department. Boerhaave syndrome is a rare spontaneous longitudinal transmural rupture of the esophagus due to a sudden increase of intraluminal pressure in the esophagus that often develops during or after persistent vomiting. Up to one third of patients present with non-classical symptoms such as neck pain or abdominal pain. The site of pain depends on the level of the oesophageal perforation.[1] Oesophageal rupture can cause rare complications such as hydropneumothorax, chemical mediastinitis, and pneumothorax can lead to cardiorespiratory impairment. These catastrophic outcomes are due to the direct leakage of fluid and air from the esophagus into the pleural cavity.[2,3] If prompt aggressive resuscitation is not initiated, it can carry a significant mortality rate. This case shows that a high index of suspicious and good clinical examination can help to establish a life-threatening diagnosis. A proper initial management plan from the emergency department can ensure a high survival rate in Boerhaave syndrome.[4]

The expeditious use of Computed Tomography scan (CT) in the emergency department helps physicians identify life-threatening conditions that need prompt intervention. In this case, an immediate CT scan was performed to establish the exact cause of the findings seen from the chest x-ray. CT is the most effective method to detect oesophageal rupture, and it is recommended that patient with suspicious feature undergo CT from emergency department.[4]

Lastly, we like to share the importance of the medical evacuation service (MEDEVAC) in Sabah. Due to its unique geographical layout and difficult road access, MEDEVAC is one of the option for transporting patient. Since urgent oesophageal repair needed to be done at the tertiary center, this patient was flown using MEDEVAC service to higher level care.

CONCLUSION

It is not uncommon that some rare diseases can present with simple complaints and frequently misdiagnosed. Delayed diagnosis and treatment of Boerhaave syndrome associated with higher mortality rate. Initiation of prompt aggressive management can ensure a high survival chance for the patient.

ACKNOWLEDGEMENT

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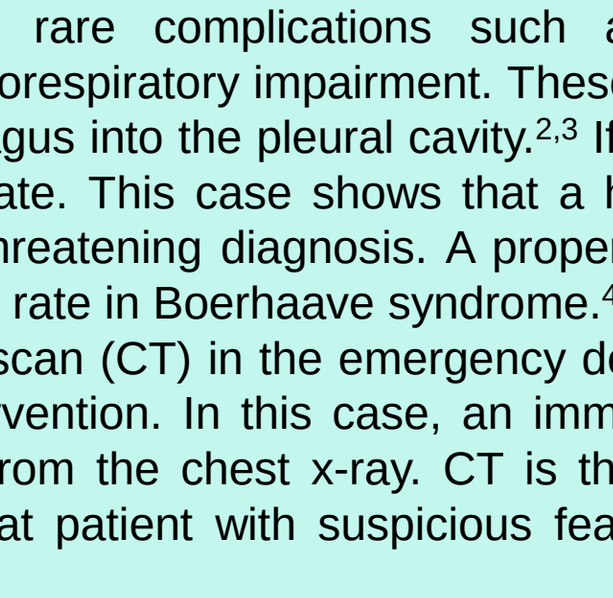

Figure 1; Left hydropneumothorax (red arrow) and mediastinal air (yellow arrow)

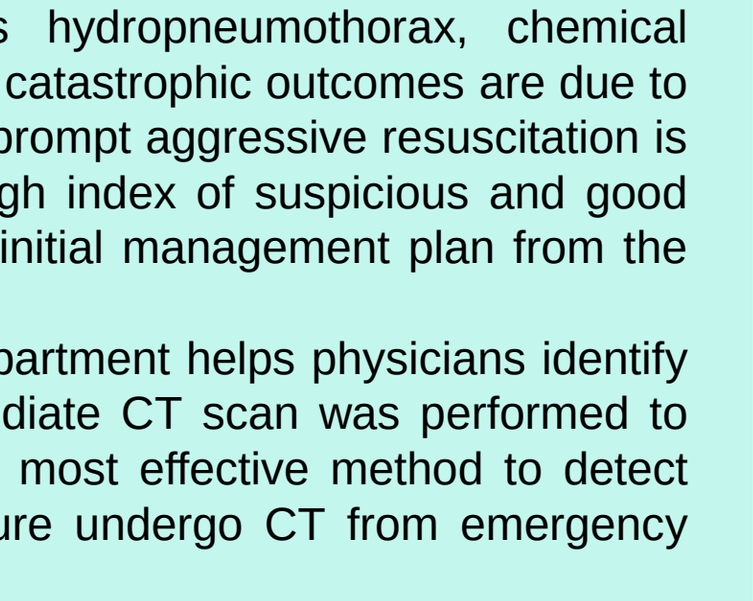

Figure 2; axial CT shows massive para oesophageal air pocket with suspicious of mucosal tear (green arrow), left hydropneumothorax (red arrow)

DECLARATION CONFLICT OF INTEREST

There are no conflict of interests regarding this publication

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