Boerhaave Syndrome: A Dangerous Condition with Common Symptoms

Muhammad Ashraf Bin Tamili, Nur Fadzlina Binti Abu Seman

Emergency and Trauma Department, Hospital Tapah, Malaysia

Introduction

Boerhaave syndrome, known as spontaneous esophageal rupture, is an uncommon medical condition¹. This case report highlights an early presentation of Boerhaave syndrome with common symptoms which can gives other broad differentials.

Case description

59 years old Chinese gentleman with no known co-morbid presented to our centre with sudden onset chest pain associated with vomiting, shortness of breath and diaphoresis. Clinically, patient alert and appears tachypnoeic with desaturation on room air. There was left lower zone crepitation and tenderness over epigastric region. In emergency department, his plain chest radiograph shows widened mediastinum with left lung field haziness initially suspected of aortic dissection. Subsequently, Computed Tomography Angiography (CTA), Contrast Enhanced Computed Tomography (CECT) Thorax and Abdomen was done and features highly suggestive of Boerhaave syndrome with left tension hydropneumothorax, thus chest tube was inserted. Esophagogastroduodenoscopy (OGDS) demonstrated perforated distal oesophagus. Patient started on antibiotic and planned for emergency left thoracotomy.

Discussion

Boerhaave Syndrome, is caused by a sudden increase in the intraluminal pressure due to vomiting⁵. It is a relatively rare pathology and occurs approximately 3.1 per 1000,000 per year². Mackler's triad is the classic presentation of Boerhaave syndrome consisting of chest pain, vomiting, and subcutaneous emphysema³. Although it is only observed in certain cases, diagnosis of cardiogenic origin can overshadow it. Classic presentation in older age is rare². In patient with hydropneumothorax; vomiting, chest pain and dyspnea are the most frequent symptoms³. Pleural effusions may form as a result of the extravasation of stomach contents and increased intraluminal pressure and oesophageal rupture commonly presents at left sided effusion⁴. When hydropneumothorax appears in radiographic studies, it is important to think about spontaneous oesophageal rupture, which requires surgical or endoscopic therapy. Early diagnosis is important and prompt treatment initiation can lead to better outcomes, which improve overall quality of life; while delaying it can increase mortality rate.

Conclusion

Boerhaave syndrome is not common, but it can be life-threatening and can be mistaken for other conditions. Therefore, patient's outcome can be improved by prompt diagnosis and emergency treatment, which is crucial in preventing mortality.

Keywords

"Boerhaave syndrome", "esophageal rupture", "hydropneumothorax"

References:

- A. Sebai, R. Elaifia, S. Atri, M. Ben Brahim, A. Haddad, J.M. Kacem, Septic shock revealing boerhaave's syndrome a case report, International Journal of Surgery Case Reports, Volume 117, 2024, 109482, ISSN 2210-2612.
- 2. Asma Jamil, Nayaab Bakshi, Mit Chauhan, Talha Munir, Sharath S Bellary, Nyan Bethel, Boerhaave Syndrome: Rare Presentation With Atypical Outcome, Chest, Volume 164, Issue 4, Supplement, 2023, Pages A179-A180, ISSN 0012-3692.
- Lieu MT, Layoun ME, Dai D, Soo Hoo GW, Betancourt J. Tension hydropneumothorax as the initial presentation of Boerhaave syndrome. Respir Med Case Rep. 2018 Jul 31;25:100-103.
- Saurabh Dharmadhikari, Gaurav Prabhu, Ashley Pinckney, Gaurang Prabhu, Kishan B Patel, Boerhaave's Syndrome Manifesting As Tension Pneumothorax With A Right-Sided Pleural Effusion, Chest, Volume 164, Issue 4, Supplement, 2023, Pages A2554-A2555, ISSN 0012-3692.
- Yusuke Nakano, Toru Nakamura, Makoto Tomatsu, Yuichiro Miyaki, Kazufumi Suzuki, Mediastinal hematoma as an unusual intrathoracic manifestation of Boerhaave Syndrome: A case report, International Journal of Surgery Case Reports, Volume 116, 2024, 109366, ISSN 2210-2612.