PP056 BOERHAAVE'S SYNDROME

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INTRODUCTION:

Oesophageal rupture is commonly iatrogenic. It is usually due to medical instrumentation such as endoscopic or paraesophageal surgery.Boerhaave's syndrome refers to spontaneous oesophageal wall rupture commonly due to excessive vomiting. This accounts for around 10% of all cases of oesophageal perforations. Boerhaave's syndrome is difficult to diagnose because there is no pathognomonic presentation. It can mimic many serious clinical conditions such as acute myocardial infarction (AMI), acute aortic dissection or tension pneumothorax, all of which are relatively more common. Patient with Boerhaave's syndrome commonly is a gentleman between the age of 50-70 years old and presents with sudden onset left sided chest pain which radiates to the left shoulder. This presentation is eerily similar to the presentation of an AMI which is much more common.Indeed, as will be demonstrated in this case report, the patient was diagnosed with acute coronary syndrome (ACS) during his initial presentation to the Emergency Department.

CASE REPORT

A 79 year old gentleman presented to the emergency department with severe epigastric and chest pain. His past medical history includes hypertension, dyslipidemia and ischaemic heart disease. His blood pressure was 60/40 mmHg and the initial ECG showed ST depressions in lead V2 and V3. He was diagnosed with ACS in cardiogenic shock and was started on treatment. Once his pain was under control, further assessments revealed reduced breath sound on auscultation of the left lung base and a guarded abdomen. His chest x-ray showed features of left haemopneumothorax with left lung collapse. A left thoracostomy tube was placed using open method and it immediately drained about 300 ml of coffee ground fluid mixed with food particles. Following this, a contrasted tomography (CT) of the thorax and abdomen was ordered, and it demonstrated evidence of contrast leakage from the lower oesophagus. Oesophageal-gastroduodenoscopy (OGDS) performed by the surgical team found a large perforation at the distal oesophageal wall. There was no evidence of other oesophageal pathology such as malignancy, stricture or ulcer during the study. The patient was managed in the intensive care unit but unfortunately, he succumbed.

DISCUSSIONS:

Boerhaave's syndrome is a diagnostic challenge due to its mimicry of other serious conditions. Classically, a patient with Boerhaave's syndrome will present with Mackler triad of vomiting, lower thoracic pain and subcutaneous emphysema. However, this is extremely rare. The specific pattern of mimicry depends on where the location of the perforation is. Contamination of the sterile mediastinum can result in ECG changes. The presence of inflammatory and non- inflammatory complications of Boerhaave's Syndrome could affect repolarization of the myocardium. The treatment of ACS with anticoagulation or thrombolysis in patient with Boerhaave's syndrome may result in life threatening bleeding complications. Imaging studies play an important role in establishing the diagnosis of Boerhaave's Syndrome. Plain chest x-ray is abnormal in over 90% of cases. The most common initial findings are mediastinal or peritoneal free air and less commonly, with cervical oesophageal perforations, prevertebral or subcutaneous air may be present. Despite the plain chest X-ray abnormalities, contrast enhanced CT scan of the chest and upper abdomen is the preferred examination. Although it may not always directly localize the site of perforation, it can detect oesophageal wall oedema, extra-oesophageal air, peri-oesophageal fluid collections and air and fluid in the pleural spaces. The management of Boerhaave's syndrome has remained controversial. Literature suggests three strategies of treatment, which are endoscopic, open surgery or conservative approach. Despite treatment, depending on the duration, severity and expertise of the treatment center, mortality rates are as high as 20-40% in treated and 100% in untreated cases.

CONCLUSION

Boerhaave's syndrome is an uncommon clinical entity with a variable mode of presentations, making it a diagnostic challenge. A high index of suspicion paired with appropriate imaging technique is essential to establish the diagnosis. The diagnosis should be considered in patients with a combination of chest pain, ECG changes and presence of pleural air or fluid on chest x-ray. Inspection of the content of chest tube drainage is important as it can provide clues to diagnose Boerhaave's Syndrome.