Online Case Report

Boerhaave's syndrome: CT diagnosis

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Boerhaave's syndrome is the postemetic rupture of a normal oesophagus, the diagnosis of which is not always immediately apparent. We present here a case report which illustrates the value of computed tomography (CT) scanning in making this often difficult diagnosis.

Key words: Boerhaave's syndrome – Diagnosis – CT scan

A 73-year-old gentleman presented with a history of vomiting, followed by haematemesis, followed by severe upper abdominal pain. The pain radiated to the chest and was making breathing difficult. On examination, he looked unwell and was sweating profusely but was afebrile and haemodynamically stable. His abdomen was tender in the epigastrium with guarding and rebound tenderness. Plain chest X-ray showed a mediastinal gas bubble thought to represent a hiatus hernia.

The CT scan showed a large retro-cardiac mass which contained gas (Fig. 1). These appearances were not interpreted correctly so endoscopy was performed which revealed no additional information. A gastrograffin swallow was interpreted as a rolling hiatus hernia.

As the patient's condition was deteriorating, a laparotomy was performed via an upper mid-line incision; a large perforation in the lower oesophagus was found and then repaired. The patient had a very stormy postoperative time but eventually made a complete recovery.

Discussion

The diagnosis of Boerhaave's syndrome can be an elusive one, indeed Boerhaave's original case was diagnosed at post-mortem.¹ The prognosis of this life-threatening

Figure 1 CT scan of a patient with Boerhaave's syndrome. The stomach contents can be seen to have leaked into the mediastinum through the ruptured oesophagus. There are also bilateral pleural effusions.

emergency is significantly worsened by any diagnostic delay.² Most textbooks recommend a gastrograffin

swallow as the diagnostic investigation of choice.³ However, in this case, the endoscopy and gastrograffin swallow were both false negatives. To the best of our knowledge, this is the first example of such a case.

In this case, CT scan was the only investigation which showed a significant abnormality. CT has not been used routinely in the diagnosis of perforation of the oesophagus. Thus the precise interpretation of the pictures was difficult due to our lack of experience. Now that CT is widely available, we believe that it will be a

very useful diagnostic tool in this condition.

References

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