

Non-Operative Management in Oesophagic Tear Due to Sengstaken Tube

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1. Abstract

1.1. Objective: To describe a non-operative management of a large oesophageal tear.

1.2. Case report: A 79-years-old man underwent an endoscopy for unstable upper gastrointestinal bleeding requiring a Sengstaken–Blakemore Tube (STB) insertion to stabilize him. A CT-scan (Figure 1) showed the presence of the gastric balloon inflated at oesophagic level. The STB was removed and a new endoscopy revealed a huge 10 cm oesophageal tear. Due to the early diagnosis, his general physical condition and the absence of extent contamination, non-operative management with endoscopic stenting was decided. The two stents were removed after two weeks with a perfect granulation tissue and no signs of perforation. Patient was discharged 4 days after.

1.3. Conclusion: Oesophageal perforations remain a potentially life-threatening emergency with a range of mortality directly related to the delay in diagnosis and initiation of optimum treatment. Non-operative treatment could be an option for selected patients with results comparable to operative treatment and endoscopic stenting should be consider in this group of patients.

2. Introduction

Most oesophageal perforations are caused by diagnostic and therapeutic interventions, followed by spontaneous rupture (Boerhaave Syndrome), foreign body ingestion, trauma and malignancy [1] and remain a potentially life-threatening emergency.

The morbidity and mortality rate are directly related to the delay in diagnosis and initiation of optimum treatment. Reported mortality ranges from 10% to 25% when therapy is instigated within 24 hours but increases up to 60% when treatment is delayed beyond

48 hours [2].

The extent of mediastinal or pleural contamination and degree of systemic inflammatory response determines management [3].

Non-operative and operative management strategies have been defended. Non-operative management should be reserved for patients with contained oesophageal perforations, limited extraluminal soilage and no evidence of systemic inflammation [4].

We present a case of a oesophageal perforation due to a Sengstaken–Blakemore tube insertion.

3. Clinical Case

A 79-years-old man with known alcoholic habit, diabetes and treated with oral anticoagulants because of an arritmia recently diagnosed, arrived at the emergency department presenting an unstable upper gastrointestinal bleeding. Treatment with fluid-volume resuscitation and proton-pump inhibitors at high doses plus somatostatin was initiated.

The patient was moved into the theatre room to perform an emergent gastroscopy after he was intubated. The endoscopy could not see the origin of the bleeding and due to the maintained instability a Sengstaken–Blakemore Tube (STB) was inserted with some difficulties, achieving haemodinamic stabilisation of the patient. The posterior CT-scan (Figure 1) showed the presence of the gastric balloon inflated at oesophagic level without signs of active bleeding.

The STB was removed and a new endoscopy revealed a huge 10 cm oesophageal tear (Figure 1).

At that moment the patient had no evidence of systemic inflammatory response. Due to the early diagnosis, his general physical condition (no need of vasoactive drugs) and the absence of extent con-

tamination, non-operative management was decided. Two oesophageal Partially Covered Self-Expandable Metal Stent (PCSEMS) [Ultraflex™ Esophageal NG Stent System – proximal release, Boston Scientific®, Massachusetts] 12 cm of length and a thoracic tube placement were inserted. In addition, broad-spectrum antibiotics, parenteral nutrition and a nasogastric tube were established to complete the non-operative management. The patient was extubated the fifth day with a CT scan showing the correct position of

the PCSEMS without mediastinal contamination (Figure 2). The patient was transferred to the conventional hospitalisation floor.

Nasogastric and thoracic tubes were removed and after two weeks a new endoscopy was performed to remove the two PCSEM and a perfect granulation tissue was observed without no signs of perforation (Figure 2).

The patient initiated oral intake and was discharged 4 days after the endoscopy.

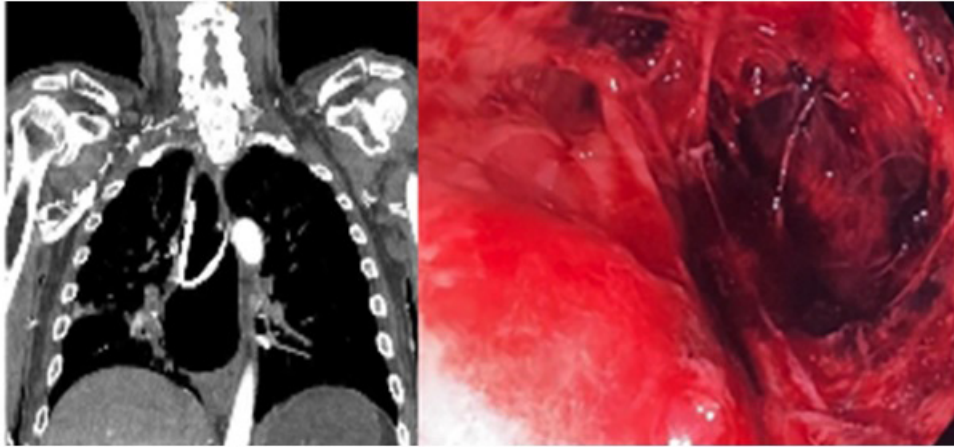


Figure 1

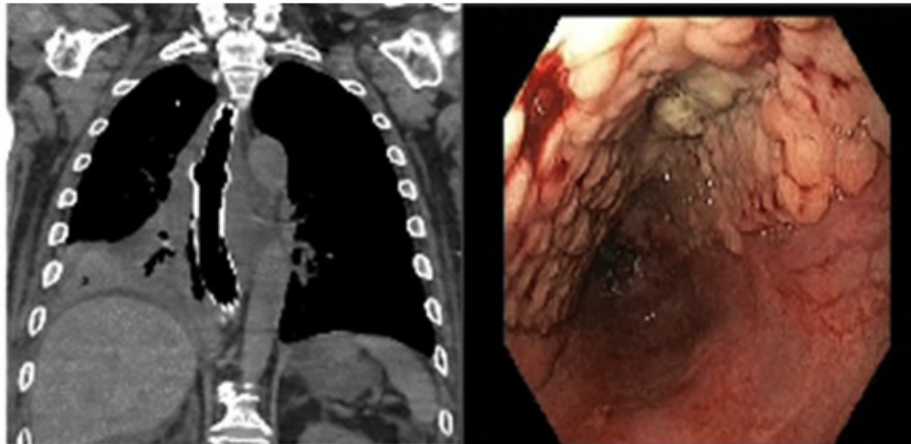


Figure 2

4. Discussion

The appropriate management of oesophageal perforations is a controversial issue that needs a multidisciplinary team [1,2,3].

Initial management includes resuscitation, early administration of intravenous broad-spectrum antibiotics including antifungals, nasogastric tube insertion and establishment of nutritional support. Chest drain insertion is required when there is evidence of pleural effusion or pneumothorax. After that, restoration of the continuity of the gastrointestinal tract should be done.

The choice of an operative or non-operative management is influenced by the extent of mediastinal and pleural contamination and the degree of systemic sepsis.

Non-operative management could be an option in patients achieving criteria as Cameron described in 1979 [5] with good outcomes also in recent series [2]. It has to be an active strategy with constant

patient reevaluation.

The role of stenting remains controversial but recent studies showed high rates of sealing perforations using stent as a primary treatment [6]. Oesophageal stenting may be appropriate in patients with extensive comorbidities or large oesophageal defects [7]. The European Society of Gastrointestinal Endoscopy recommends that temporary stent placement can be considered for treating oesophageal leaks, fistulas, and perforations [7].

5. Conclusion

To conclude, oesophageal perforations remain a potentially life-threatening emergency that can be difficult to treat.

Selected cases can benefit from a non-operative active management and we should consider endoscopic stenting for the treatment as an option to patients with large defects.

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