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Boerhaave's syndrome repaired with surgery and oesophageal stent placement: a case report

Cover Page Footnote

Nil

Boerhaave's syndrome repaired with surgery and oesophageal stent placement: a case report

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Abstract

Background: Boerhaave's syndrome is a condition resulting in oesophageal tear, commonly affecting the distal part of the oesophagus. Early identification and treatment of the condition reduces mortality. In this condition the symptoms are not specific, which usually delays the diagnosis and results in poor outcome.

Key words: Boerhaave's syndrome, Intercostal drainage tube, jejunostomy, oesophageal stent

INTRODUCTION

Spontaneous transmural oesophageal injury is called as Boerhaave's syndrome. The causes for Boerhaave's syndrome are iatrogenic-endoscopy or paraoesophageal surgery, vomiting, Barrett's oesophagus and oesophageal strictures. Vomiting and straining causes spontaneous perforation of the oesophagus due to rapid raise in pressure within the oesophagus. (Eroglu, et al., 2004).

CASE REPORT

Mr X, a 42 years old male, soldier by occupation, got admitted to the Intensive Care Unit (ICU) of Kasturba Hospital Manipal, under Department of General Surgery with the chief complaints of vomiting followed by left side chest pain, dull aching, continuous through the left chest and feeling of breathlessness. That morning before getting hospitalized, he travelled from Thirthahalli to Kundapura in a car and vomited during the journey. He had chest pain followed by vomiting. The intensity of pain gradually increased and it was severe by evening. Immediately he was taken to a nearby nursing home and investigated for myocardial infarction, which showed no changes in cardiac function. Computerized Tomography (CT)

scan of the chest was done to diagnose the cause for chest pain, which revealed oesophageal tear. It was found that the patient had hydrothorax and collapse of the left lung. Patient was managed by inserting intercostal drainage tube and was referred to Kasturba Hospital, Manipal for further management. Patient was posted for emergency surgery. Oesophageal repair and jejunostomy was done. The intercostal drainage within first 24 hours was five liters, which included food particles. Postoperatively the patient was managed with intravenous (IV) fluids, antibiotics, analgesics, and jejunostomy feeding and chest physiotherapy.

Investigations

Chest X ray, CT of the chest showed left side hydrothorax (Fig.1). Repeat chest X- ray findings showed minimal hydrothorax (Fig.2). Barium swallow was done 1 month after surgery. Findings showed narrowing of the oesophagus in the lower end (Fig. 3). Oesophageal stent placement was done to prevent further risk of tear of oesophagus. Total Leukocyte Count was: 12,500 cells/mm³, Platelet count was -226,000 cells/mm³, Urea levels were -43mg/dl, Creatinine level was -0.6 mg/dl.

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Fig.1 Chest X - ray taken on 26/11/12.



Fig. 2 Chest X- ray On 16/12/12



Fig. 3 Barium swallow

Nursing management

Nursing assessment data: Breathlessness, respiratory rate - 24 breaths/minute, dry lips, oxygen saturation - 80%, intercostal drainage tube in left lung, jejunostomy feeding tube was present.

Subjective data: Pain, disturbed sleep, anxiety.

Care of the intercostal drainage tube

The patient was placed in a semi-fowler's position with regular position changes, checked the patency of drainage, observed the patient for vital signs and oxygen saturation, assessed for pain, observed for bubbling in the water seal.

Jejunostomy feeding management

The following care was given to Mr X as jejunostomy feeding management; semi fowler's position, aspiration of the stomach content to know the residual food matter, bowel auscultation and observation for abdominal distension to know the bowel motility.

DISCUSSION

The classic presentation of Boerhaave's syndrome is severe vomiting followed by severe retrosternal chest and upper abdominal pain. Odynophagia, tachypnea, dyspnea, cyanosis, fever, and shock subsequently develops (Brauer, et al., 1997). Surgery should generally be performed within 24 hours after development of symptoms. Existing surgical techniques and management of patients in ICUs have reduced mortality, even with delayed surgery (mortality reduced by approximately 20 percent). Delay beyond 24 hrs, in providing treatment, leads to increased mortality (Biancari, et al., 2013).

CONCLUSION

Boerhaave's syndrome is a rare condition and there has been variability in the way in which it is managed. This patient was managed within twenty four hours with surgery, restoring him to normal health.

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