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Nonoperative Management Of Boerhaave Syndrome By A Balloon Tip Esophagogastric Tube.

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ABSTRACT

Spontaneous rupture of the esophagus remains a medical and surgical challenge, Both of these, gastroesophageal reflux and infection interfere with healing of esophageal perforations and prolong the associated complication of esophagitis, mediastinitis, empyema and persistent fistula.

A patient with Boerhaave syndrome was successfully treated by ballon tip esophagogastric tube, Prevention of gastroesophageal reflux, continuous irrigation of perforated area by antiseptic solution, and nutritional support were ensured with this method.

Esophageal perforation or rupture is a life-threatening occurence requiring urgent management. Despite provided medical and surgical advances, due to additional factors, esophageal perforation still continues to be at high mortality rate such as, 47-63%[1].

We present a case of spontaneous perforation of the esophagus succesfully treated by balloon tip esophagogastric tube.

CASE REPORT

A 52-year-old man was admitted to the hospital with the complaint of chest pain, He felt sick and vomited violently about 72 hours ago. He immediately became cyanosed and dyspnoeic and complained of the oppressive pains at the back and lower part of the thorax, as well as in the epigastrim. The pain was accentuated by deep breathing.

His general state was badly and he had mild fever (37,5°C) and mild leucocytosis (10,500/mm3). Examination revealed that percussion left base of thorax was dull and there were physical signs indicative of a considerable amount of the left pleural cavity. The first drenage of the pleural space was 1500 cc. It consisted of the remainder of the food and purulan fluid with sediment.

Roentgenogram of the chest showed a collection of liquid and some gas in the left pleural cavity (Fig I), Esophagogram by Conray-60 (Meglumine iothalamate 60) demonstrated a perforation of the esophagus above lower third of the esophagus with pleural involvoment (Fig 2).

Figure 1:Hydropneumothorax that is due to the perforation of the esophagus is seen.

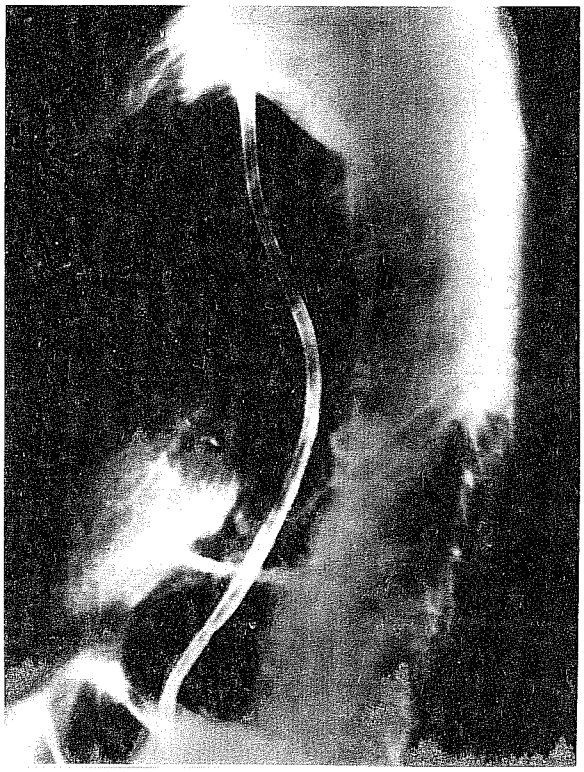

Figure 2: Radiograph showing the balloon obstructs esophagogastric junction and extravasation of radiopaque material into the mediastinum and the left pleural space.

Endoscopy indicated that there is a perforation sized 1 cm x 1 cm the lower third of the esophagus. The taking specimen was considered histologically chronic inflamatory lesion of the esophagus.

A basal chest tube was inserted for drainage, A Senkstaken-Blackmore tube was modified (esophageal balloonless), applied and traction was placed on the tube, 0,5 % povidon iodine solution was given as drips through the esophageal lumen for irrigation of the perforated area, mediastinum and pleural cavity, Due to inflated gastric balloon, obstructing the esophagogastric junction, iodine solution was sheding totaly to the mediastinum and left pleural cavity, Thus, perforated esophagus and pleural cavity were irrigated by iodine continuosly as 3000 cc/day. The combination of Seftriakson 2x1 gr/day and Gentamisin 2x80 mg/day vere given for 30 days in result of the antibiogram, With nutritional support by means of nasogastric tube and continuous irriggation of the fistula and pleural cavity, the patient's condition improved rapidly in a few days with almost

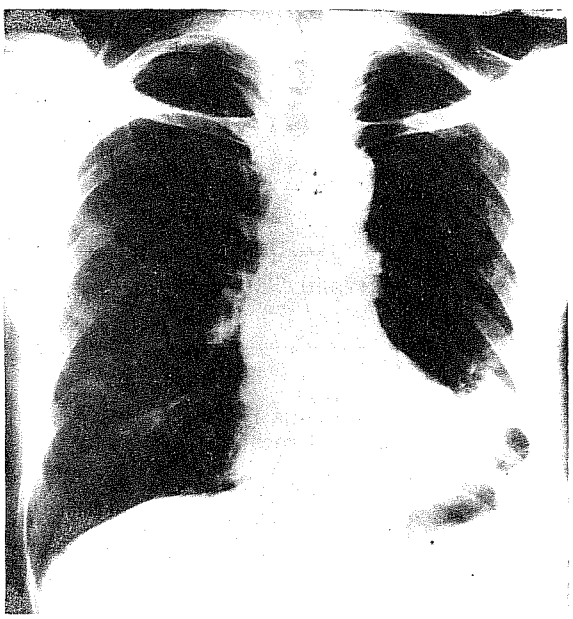

Figure 3: The control esophagogram after healing of the perforated esophagus.

normal temperature, On the 10 day drainages of the irrigation fluids markedly diminished from the mediastimum and pleura, After healing of the perforation, on the 18 day nasogastric tube was removed and he started feeding as orally. On the 45 day, pleural drenage that was purulan and about 50 cc/day absolutely stopped chest tube were removed. Barium Swallow showed no abnormality of the esophagus (Fig 3), The left lung had expanded completey and the patient was discharged on the 55 day with normal swallowing function.

COMMENT

The decision for surgical or nonsurgical management of esophageal perforation remains difficult, especially new that nonoperative management of this condition has been advocated even for forceful, spontaneous postemetic perforations, [2-6] which normally have a poor prognosis after delayed surgical treatment.

Irrigation and drainage without repair may be employed in carefully selected cases. Criteria for considering nonoperative management of esophageal perforation have been proposed [4]: a- The cavity around the "contained' perforation should be well drained

back into the esophagus; b-minimal symptoms should be present; and c-there should be minimal evidence of clinical sepsis, However, in the early stage after perforation of the esophagus confirmed by extravasation of contrast material, it can be very difficult to determine whether the perforation will remain "contained" or will lead to mediastinitis and pleural contamination, with subsequent respiratory failure and septic shock, [5] If the perforation of the esophagus is small and the pleural contamination is absent or minimal, good results may be obtained from drainage,[7] In mild cases with few local and systemic symtoms, several authors have documented succesful treatment of esophageal perforation with nonoperative management, [4,7-9,10] The same approach has been advocated for forceful spontaneous perforation, which usually has a poor prognosis even after early surgical treatment, [2,3,8,11]

In nonsurgical management of esophageal perforation there are five problems; a-prevention of gastric reflux b-washing out of the perforation c-drainage of mediastinum and pleural cavity d-feeding of the patient, and e-control of infection, These are ensured by means of our simple method.

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