



A Rare Case of Boerhaaves Syndrome Managed Conservatively

Authors

**Dr. Vinaya Ambore¹, Dr. Vikram Wagh², Dr. Prashant Turkar³, Dr. Kapil Patel⁴
Dr. Aniket Deshmukh⁵**

¹Associate Prof. in General Surgery, Grant Medical College, Mumbai

²Assistant Prof in General Surgery, Grant Medical College, Mumbai

^{3,4,5}Residents in General Surgery, Grant Medical College, Mumbai

ABSTRACT

The incidence of Boerhaave syndrome is relatively rare. A 1980 review by Kish^[5] cited 300 cases in the literature worldwide. A 1986 summary by Bladergroen^[6] et al described 127 cases. Of these, 114 were diagnosed antemortem; the others were diagnosed at autopsy. Its diagnosis is based mainly on exclusion of major causes of its presenting symptoms like chest pain and vomiting. We report one such rare case at our facility which was diagnosed late after investigation approx 5 days of admission. It was successfully managed by conservative methods without any operative intervention.

Keywords: *Boerhaave syndrome, Conservative Boerhaave management, Rare case Boerhaave.*

Introduction

Boerhaaves syndrome (BS) refers to spontaneous rupture of esophagus associated with forceful vomiting after excessive drinking or eating. This infrequently seen condition is associated with high mortality rate if misdiagnosed and not treated promptly. Because of its rarity and lack of large published series, awareness and applications of its accepted standard treatment seems poor among surgeons. Furthermore recommendation in literature remains controversial. We describe the

diagnostic, clinical and therapeutic aspects of a 37 yr old man diagnosed as a case of BS 5 days after acute onset of chest pain and dyspnea following vomiting after excessive ingestion of alcohol.

Case Presentation

A 37 yr old male came to medical centre with acute onset of chest pain and dyspnea. On admission in medical ward he appeared critically ill with cool calmy skin. His examination revealed blood pressure of 90/50 mm hg, pulse of 104/min,

respiratory rate of 32/min. His oxygen saturation was 85 %.Chest X ray was suggestive of left sided haziness. He was treated for ARDS on empirical basis. But his condition did not improve and hence on 5 th day of admission CT thorax was obtained which was suggestive of left sided severe hydropneumothorax with small rent in lower esophagus on posterolateral aspect. Detailed clinical history was obtained which was significant for a bout in alcohol ingestion followed by forceful vomiting few hours before the onset of chest pain and breathlessness. Immediate tube thoracostomy was done and 400-500 cc of purulent fluid was drained per day in the initial 4 days. Fluid was sent for culture sensitivity and IV antibiotic therapy with nil per oral with TPN was started. Patient was closely monitored till the drain

output was clear and 150-200 ml per day. After 3 weeks of watchful waiting OGD scopy was done which was suggestive of a small rent of size 3 cm in left lower lower esophagus 4cm from GE junction and simultaneously guided nasojejunal tube insertion was done. Patient was started on nasojejunal feeds and after tolerating them well. Patient showed clinical improvement and a CECT thorax with oral contrast was obtained which was s/o no evidence of rent in lower esophagus with no leak and a small left lower lobe hydropneumothorax. CT guided ICD insertion was done which resulted in complete resolution of the pathology. Patient was also given incentive spirometry for the same. Tube was removed and the patient was discharged after 4 weeks of management.

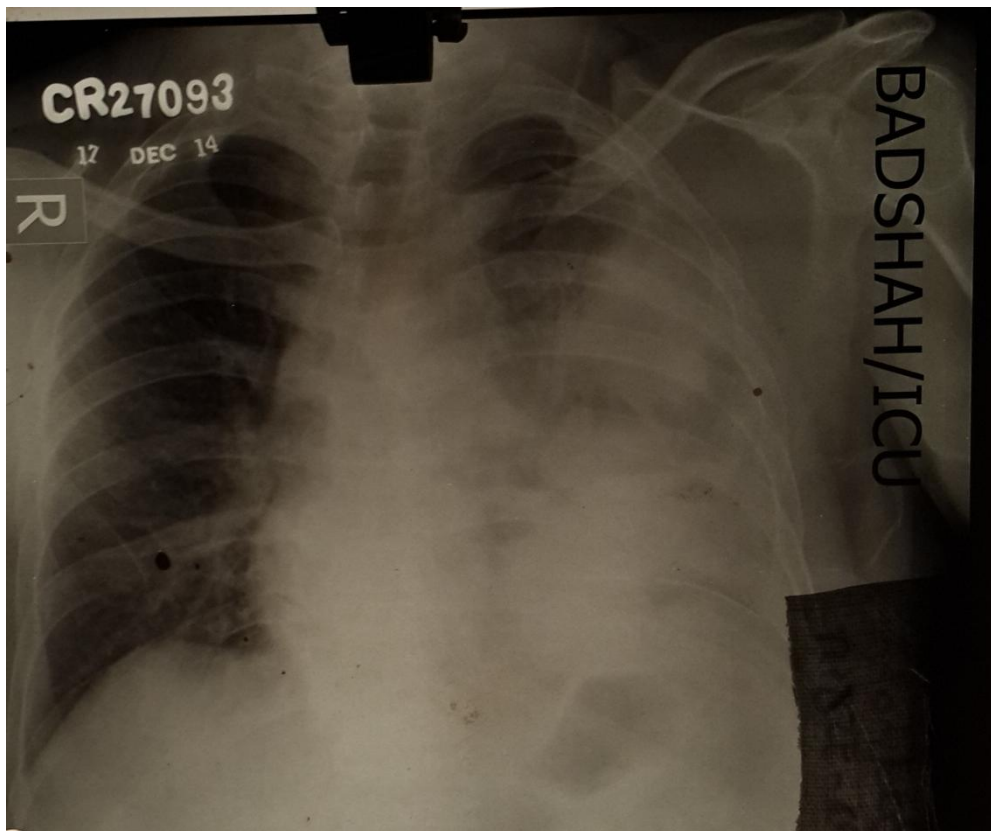


Fig 1: Chest X ray showing Left sided haziness with which the patient presented to Surgery Dept.

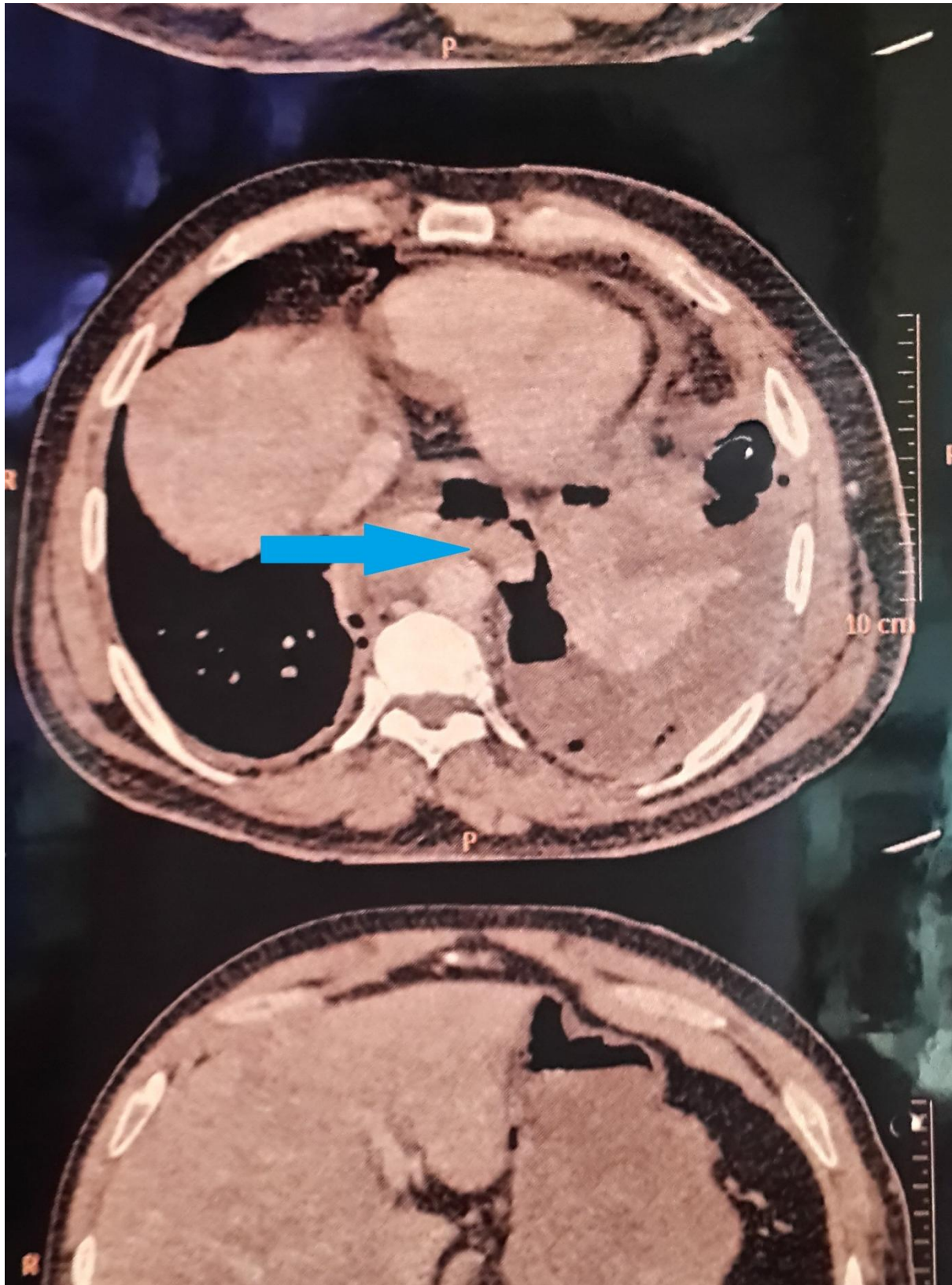


Fig 2 CECT thorax showing left hydropneumothorax with rent in lower esophagus

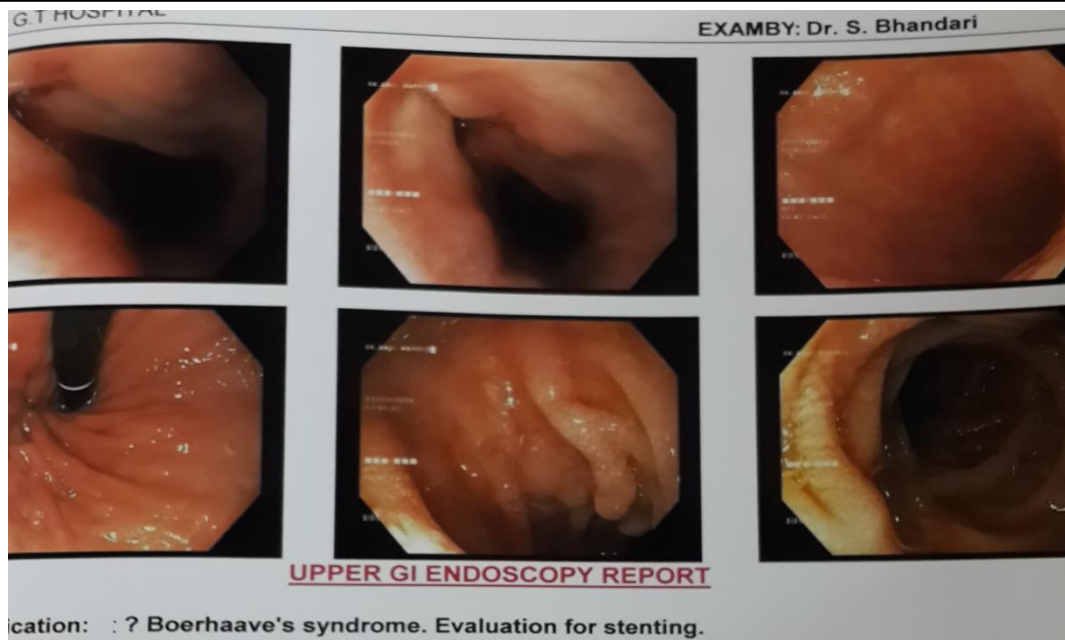


Fig 3- OGD scopy illustrating rent in lower esophagus 3 cms in size

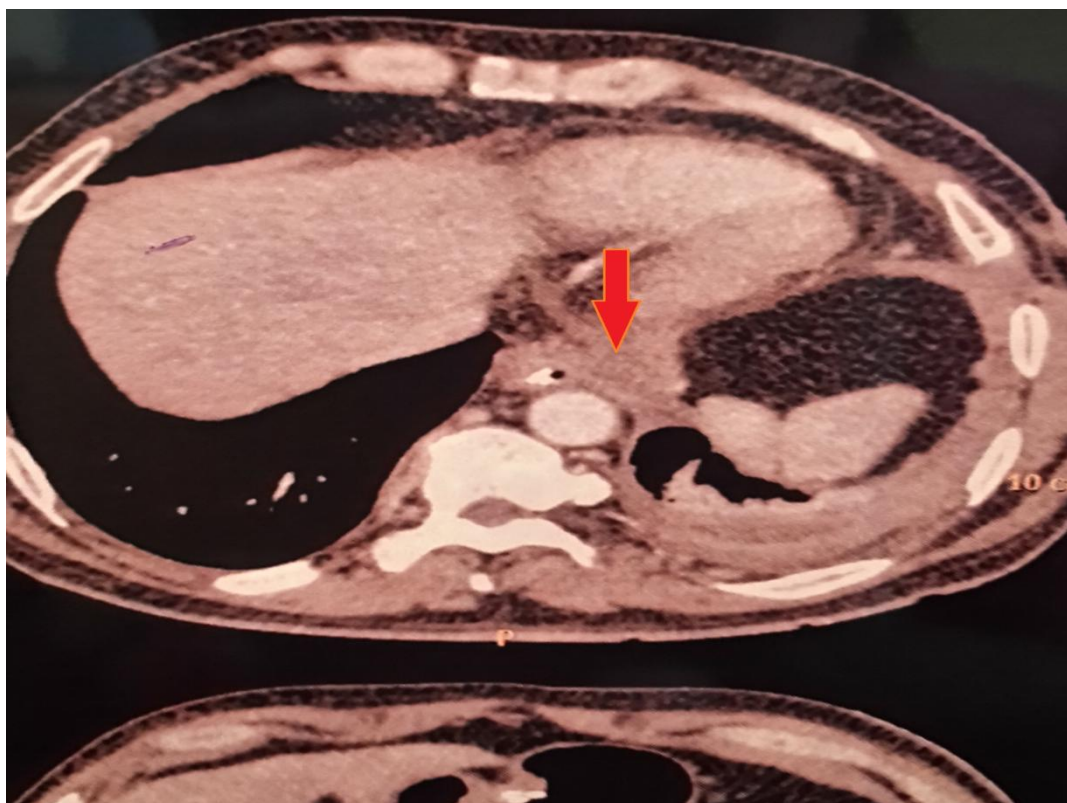


Fig 4- CECT Thorax showing healed perforation

Discussion

BS, considered the most serious cause of esophageal perforation, may be associated with high mortality rates ranging from 20-75% [1]. Proper diagnosis of such patient requires early diagnosis and multidisciplinary approach. If left untreated such condition will have mortality ranging 100%. [1]

A look to published reports give a wide heterogeneity regarding current treatment options in patients treated with BS. Still a controversy regarding optimal management of BS exists. Salo et al [3] argue that for delayed diagnosis esophagectomy is the procedure of choice. Primary suturing should be done only in patients with early perforation within first 12 hrs in 2 layers with use of pedicled intercostal or omental scaffold.

Jaugeon et al [2] suggested primary repair of esophagus whatever the delay was.

In contrast Vougel et al [4] suggested the use of conservative management such as chest tube drainage, frequent radiological imaging to assess the leak, aggressive IV antibiotics and percutaneous drainage of loculated fluid collection. Survival rates approaches 92 % after such conservative management.

Patients who present early within first 24 hours should be treated with surgery and patients with late presentations should be managed conservatively, especially in young patients with small sized tear. In the latter patients gastroscopy guided procedures can be done for which various options are available which include-hemoclip application to seal the rent, placing stent across the rent and nasojejunal tube insertion.

Nasojejunal tube insertion is a cost effective method and avoids further scopy as it can be removed without guidance.

Total esophageal resection is a very serious decision for very young patients. In addition to the known methods (nil oral intake, nasogastric tube insertion under guidance, and parenteral nutrition) very close monitoring including an intensive clinical observation of mediastinitis and sepsis, drainage of both mediastinal and pleural spaces with the aid of tube thoracostomy located at appropriate place using CT or USG can be enough for spontaneous closure of esophageal tear.

Conclusion

In conclusion, traditional rules including taking a complete and detailed history combined with clinical and radiological signs from every patient still constitute the initial and main management for any patient admitted to an emergency department. If BS is considered the differential diagnosis in a patient with chest pain and pleural effusion then early surgical repair will minimize the high mortality rates related to delayed diagnosis. The main criterion in prognosis is not only the free interval between diagnosis and treatment but also the clinical form. The cause of severity of BS is not related to esophageal tear but to the extent of mediastinitis. Scopy guided procedures can replace operative management conducted in with patience in patients having small defect with late presentation (after 24 hrs). Close follow up regarding subsequent fibrosis should be borne in mind.

Acknowledgements/ Conflict of interest

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There is no conflict of interest among the authors and we pledge that this article has not been in consideration anywhere else apart from International Research Journal.

rupture. *Ann Thorac Surg.* Sep 1986;42(3):235-9

References

1. Jones WG 11, Ginsberg RJ. Esophageal perforation: a continuing challenge. *Ann Thorac Surg.* 1992;53:534-543.
2. Jougon J, Mc Bride T, Delcambre F, et al. Primary esophageal repair for Boerhaave's syndrome whatever the free interval between perforation and treatment. *EurJ Cardiothorac Surg.* 2004;25:475-479.
3. Salo JA, Isolauri JO, Heikkila LJ, et al. Management of delayed esophageal perforation with mediastinal sepsis. Esophagectomy or primary repair? *J Thorac Cardiovasc Surg.* 1993;106:1088-1091.
4. Vogel SB, Rout WR, Martin TD, et al. Esophageal Perforation in Adults: Aggressive, Conservative Treatment Lowers Morbidity and Mortality. *Ann Surg.* 2005;241:1016-1021.
5. Kish GF, Katske FA. A case of recurrent Boerhaave's syndrome. *W V Med J.* Feb 1980;76(2):27-30
6. Bladergroen MR, Lowe JE, Postlethwait RW. Diagnosis and recommended management of esophageal perforation and