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Syndrome of Boerhaave and Pregnancy: A Case Report

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Abstract **Case Report**

The syndrome of Boerhaave is a rare affection, it's is characterized by the spontaneous transmural rupture of the esophagus. The classic presentation of Boerhaave syndrome is characterized by Mackler's triad, consisting of chest pain, vomiting, and subcutaneous emphysema. We report a case of spontaneous rupture of the oesophagus in a three-month pregnant woman, further to incoercible vomiting. The good clinical tolerance of the patient has allowed a medical care with strict monitoring, parenteral food and broad-spectrum antibiotic therapy. The surgery, usually indicated in this pathology, was not realized in this case. The obstetric and neonatal future was favorable. We discuss the diagnostic difficulties, the modalities of cares as well as the prognosis of such a pathology.

Keywords: Boerhaave syndrome, antibiotic therapy, surgery, oesophagus.

INTRODUCTION

Spontaneous transmural rupture of the esophagus, or Boerhaave syndrome, was first described in 1724 by Hermann Boerhaave. It's characterized by the triad: vomiting efforts, chest pain and subcutaneous emphysema, corresponds to a spontaneous rupture of the lower third of the esophagus. It is a rare pathology that is difficult to diagnose and whose prognosis depends on the precocity of management. It occurs mainly during vomiting efforts.

We report the case of a Boerhaave syndrome that occurred at 13 weeks of amenorrhea in a patient with incoercible vomiting and discuss the diagnostic difficulties, the management modalities and the prognosis of such a pathology.

CASE PRESENTATION

22 years old woman, pregnant with a first pregnancy of 15 weeks of amenorrhea, is hospitalized in urgency for acute retrosternal pain and facial swellig, the beginning of her pregnancy was marked by nausea with uncontrolled vomiting (about four to five times a day), responsible for weight loss of 4 kg and not relieved by ordinary anti-emetics. Clinical examination revealed Cervicofacial subcutaneous emphysema. There was no haemodynamic disturbance, the rest of the clinical examination was normal. A chest CT scan revealed a large pneumomediastinum extending into cervical and supraclavicular region, suggesting, in the absence of other etiologies, the diagnosis of Boerhaave syndrome. The good clinical tolerance of the patient has allowed a medical care with strict monitoring and she was fasted with feeding prenterale bringing 2000kcal per day, she also received antiemetic treatment with GRANISETRON infusion and anti-acid treatment with ranitidine, a broad-spectrum antibiotic therapy was administered. The evolved favorably under simple medical treatment with the disappearance of pain and emphysema. A chest CT scan with gastrograffin performed at day 5, did not show a clear breach. Iterative fetal ultrasounds have been performed. She was able to return to her home on day 10, with a prescription of antacids and antibiotics, and biological control of the infectious markers.

DISCUSSION

Boerhaave's syndrome is a rare but severe complication caused by excessive vomiting, due to a sudden elevation in intraluminal esophageal pressure resulting in esophageal perforation [1].

It is usually seen in men between 40 and 60 years of age. The classic clinical presentation consists of a history of alcoholism; Meckler's triade of vomiting, pain in the lower thorax, and subcutaneous emphysema [1]. Also, other symptoms such as facial and cervical swelling may be present. Boerhaave's Syndrome with pregnancy as a complication of Hyper emesis

gravidarum is a rare but very serious complication [2]. The baseline examination to confirm the diagnosis, it is the thoracic CT scan with opacification of the esophagus, which supplants gastroscopic esophageal transit [3]. It allows to visualize the extravasation of the contrast product by the oesophageal breach. Chest computed tomography is also used, showing direct or indirect signs, such as pneumomediastinum, peresophageal edema, signs of mediastinitis [3]. Management depends upon the delay in diagnosis and overall medical condition of the patient. Nonsurgical treatment has a limited role in managing patients with oesophageal perforation [4]. It is advised only in those with late presentation or in those with poor medical reserve. We opted for conservative treatment due to the excellent clinical tolerance [5].

CONCLUSIONS

Background

Boerhaave's syndrome (Spontaneous oesophageal perforation following forceful vomiting) is uncommon. However, when it occurs and the appropriate treatment is not given on time, it is fraught with early complications, leading to a very high morbidity and mortality rates.

Boerhaave's syndrome itself is uncommon and to happen in a pregnant female in relation to hyperemesis gravidarum is of very rare incidence as shown in literature review as well.

Aim

Presenting such rare case, emphasizing the importance of early diagnosis and how that carry a great impact on management decision and the outcome especially with pregnant female will definitely increase the awareness of such rare condition which will help in early diagnosis, early management and better outcome.

Methods

Our case is a 21 years old female, 12 weeks pregnant, was admitted 2 days prior to surgical review under care of the obstetric team with diagnosis of hyper emesis gravidarum, Surgical team was called for urgent review of this lady as after an episode of forceful vomiting she started to develop progressive surgical emphysema affecting her neck and upper chest wall as well. Diagnosis of Oesophageal perforation was made via a CT scan. Managed conservatively. Literature Search was performed via two search engines first is MEDLINE from the year 1946 to week 3 of November 2015 and second is EMBase from 1980 to week 51 of the year 2015. Search was narrowed to a relevant 48 papers, abstracts of the 48 papers read, 26 were excluded as it was not relevant, 11 excluded as they were duplicate, 9 full text of the relevant 11 abstracts obtained and 2 we could not obtain the full text for them.

Results

Overall 13 patients with Boerhaave's syndrome with pregnancy as a complication of hyper emesis gravidarum "including our case" were found in literature, 9 of which managed conservatively, 2 Had surgical intervention and the 2 which we could not obtain the full text their management was not clearly mentioned in the abstract. Patient age ranged between 15-37 years and gestational age ranged between 8 and 35 weeks.

Conclusion

Boerhaave's Syndrome with pregnancy as a complication of Hyper emesis gravidarum is a rare but very serious complication, prompt diagnosis and management allow safe conservative management and satisfactory outcome.

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