

Is That an Oesophageal Foreign Body I See?

Ivan Chua SY* and Ponampalam R

Singapore General Hospital, Singapore

*Corresponding author: Ivan Chua SY, Singapore General Hospital, Singapore, Tel: +65 6788 8833; E-mail: drivanchua@gmail.com

Received date: March 1, 2016; Accepted date: March 24, 2016; Published date: March 31, 2016

Copyright: © 2016 Ivan Chua SY, et al. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

Abstract

The presence of an oesophageal foreign body is a medical emergency requiring urgent evaluation and treatment and in cases with complications such as migration of foreign body or oesophageal perforation, surgical intervention may be necessary. We present a case of a 23 year old Chinese female with no significant past medical history who presented to the emergency department with central chest discomfort for a week. She had throat discomfort prior which started after she accidentally swallowed a small piece of cockle shell while eating. CXR and lateral neck X-ray were done which did not reveal any abnormalities. A referral was made to the ENT team to rule out the possibility of a foreign body, and a nasoendoscopy was performed which did not reveal any abnormalities. In view of her persistent symptoms, a CT chest was performed which revealed a curvilinear radio dense opacity at the aortopulmonary window measuring 1.0cm, which is suspicious for a foreign body. The differential for a radio dense opacity in the aorto-pulmonary window is calcification of the ligamentum arteriosum, which was the final diagnosis after exclusion with further investigations inpatient.

Keywords: Oesophageal; Foreign body; Calcified ligamentum arteriosum

Case Report

A 23 year old Chinese female with no significant past medical history of note presented to the emergency department with central chest discomfort for a week, which was worse on lying supine and on eating. There was no shortness of breath. She had throat discomfort prior to that which started after she accidentally swallowed a small piece of cockle shell while eating. Systemic review did not reveal any fever, chills, cough or hemoptysis (Figure 1).

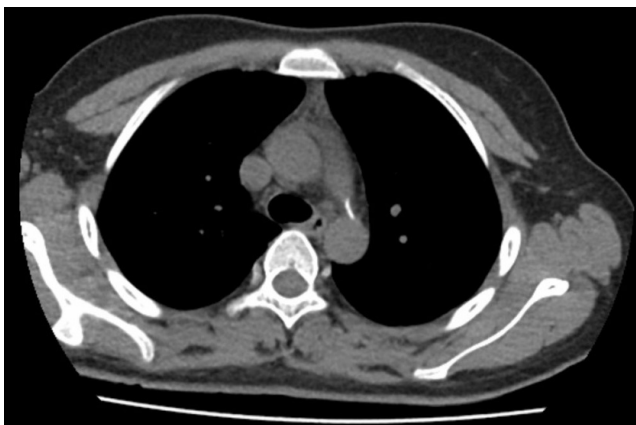


Figure 1: Coronal view of CT chest.

Her physical examination findings are as such - T 36.5 BP 103/66 HR 75 RR 16 SpO2 21% on room air. She was alert and appeared well, not in any forms of distress. There was no obvious foreign body in her oral cavity. Heart sounds were dual and on auscultation of her lungs,

there was no wheezing or rales, air entry was equal bilaterally. Her abdominal and neurological examinations were unremarkable.

Blood investigations revealed a normal full blood count - Hb 14.1 TW 6.25 Platelets 339. Renal panel was normal as well.

A baseline ECG was performed which revealed a normal sinus rhythm with no abnormal ST segment changes. CXR and lateral neck X-ray were done which did not reveal any abnormalities (Figure 2).



Figure 2: Anterior-posterior view of CT chest.

She was referred to the ENT team in view of possibility of foreign body, and a naso-endoscopy was performed which did not reveal any abnormalities. In view of her persistent symptoms, a CT chest was performed.

There is a curvilinear radio dense opacity at the aorto-pulmonary window measuring 1.0 cm, which is suspicious for a foreign body. Posteriorly, it is abutting the anterior wall of the proximal descending thoracic aorta and anteriorly it is abutting the left pulmonary artery. There is no obvious pneumo-mediastinum, no mediastinal mass and no enlarged mediastinal, axillary, supraclavicular or hilar lymph nodes.

The patient was admitted to the hospital for suspicion of a foreign body in the oesophagus and underwent a gastrograffin study which did not reveal any suspicious radio-opaque foreign body or any contrast leak. The patient was treated with analgesia with improvement in symptoms and tolerated diet well upon completion of the above investigations and subsequently discharged.

Discussion

The ductus arteriosus connecting the pulmonary artery with the aorta delivers blood from the right to the left circulation in a foetus and normally closes within the first 48 hours of life (functional closure) with anatomical closure by 3 months. A ligament remains which is named the ligamentum arteriosum [1]. Calcification of the ligamentum arteriosum has been previously described in the literature [2-4] and the clinical significance is unknown. It has been suggested that the presence of a calcified ligamentum arteriosum in children may be used to rule out a patent ductus arteriosus [3].

The presence of calcification within the ligamentum arteriosum is based on the basis of anatomic location, lack of associated soft-tissue mass, and lack of other evidence of mediastinal pathologic changes or

congenital heart disease, specifically a patent ductus arteriosus [2]. The clinical significance of the calcification is uncertain in view of conflicting studies in the literature.

Conclusion

The presence of an oesophageal foreign body is a medical emergency requiring urgent evaluation and treatment and in cases with complications such as migration of foreign body or oesophageal perforation, surgical intervention may be necessary.

In the absence of any pathology identified, the differential for a radio dense opacity in the aorto-pulmonary window is calcification of the ligamentum arteriosum, whose clinical significance is unknown.

References

1. Vogler T, Schulz F, Heyer C, Müller KM, Müller AM (2007) [Diverticulum of the ductus arteriosus. Cause of traumatic aortic ruptures?]. *Chirurg* 78: 47-51.
2. Bisceglia M, Donaldson JS (1991) Calcification of the ligamentum arteriosum in children: a normal finding on CT. *AJR Am J Roentgenol* 156: 351-352.
3. Currarino G, Jackson JH (1970) Calcification of the ductus arteriosus and ligamentum botalli. *Radiology* 94: 139-142.
4. Ampanozi G, Ruder TD, Hatch GM, Bolliger S, Thali MJ (2010) Incidental findings in post-mortem CT: Calcified ligamentum arteriosum. *Leg Med (Tokyo)* 12: 313-315.