Reading the shadows- Esophageal duplication cyst

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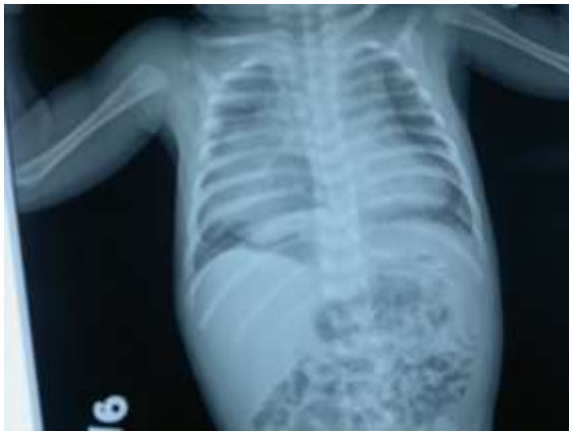
Access this article online

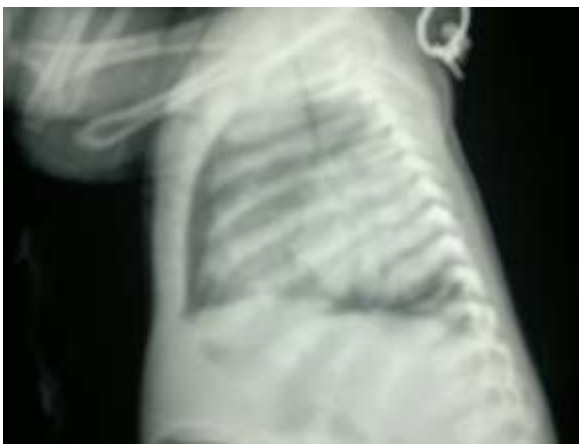
Quick Response Code:

Website: www.innovativepublication.com

DOI: 10.5958/2455-6793.2016.00010.9

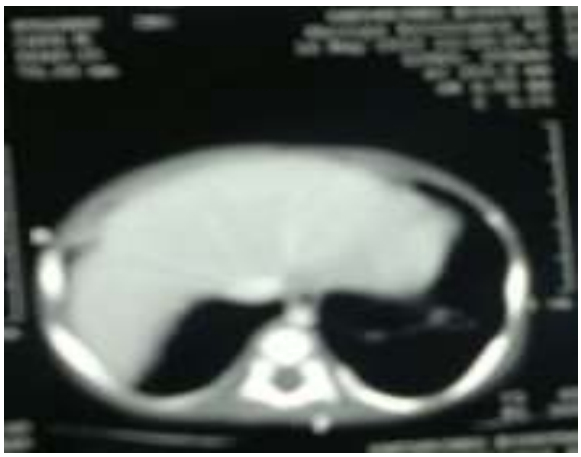
A 2 months old child presented with fever and fast breathing since 5 days. Examination showed tachypnoea with increased work of breathing and reduced bilateral air entry into the chest with occasional wheeze. His CXR (AP and lateral view) are given below:

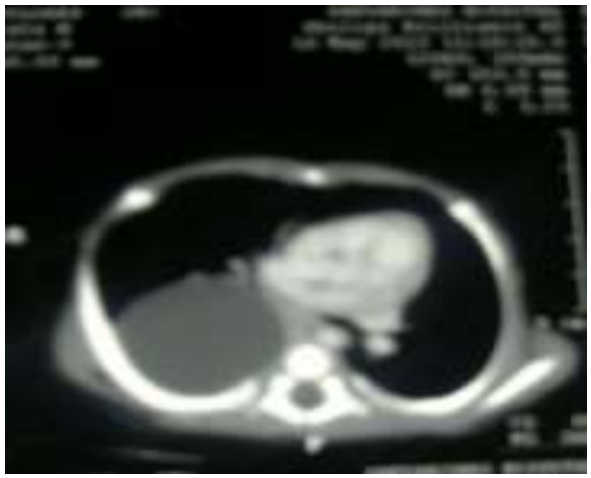




What is your diagnosis?

The child was managed conservatively and a Computed tomographic scan of the baby was done which showed a well-defined thick walled (2mm) cystic lesion in the right hemithorax (3.7x3.7x4.3cm) posterior, closely attributed to the mediastinum medially and in close relation to esophagus suggesting duplication cyst.





The child was taken for surgery and a right thoracostomy was done. A 6X6 cm cyst with mucinous material inside which was in close proximity to the esophagus and adherent to the ventrolateral column having feeding vessels from the aorta was excised after pleural dissection.

Esophageal duplication cysts result from a defect in the vacuolization of the esophagus, in the 6 week of intrauterine life[1]. Congenital esophageal cyst is estimated to be 1:8200, with a male: female ratio of 2:1[2]. It is sometimes associated with other anomalies

like small intestinal duplication, esophageal atresias, tracheoesophageal fistulas, and spinal abnormalities[3]. Esophageal duplication can be of three forms:

1. The most common is a cystic form that may or may not communicate with the esophageal lumen,
2. A tubular form or
3. A diverticular form[4].

These are usually found in the posterior mediastinum and protrude into either the right (common) or left thoracic cavity beneath the parietal pleura. These lesions are mostly found in the lower half of esophagus[5]. A radiological investigation (CT and MRI) helps in delineating the size, location, extent, and the anatomic association of the mass to other organs. Esophagogram also aids in diagnosis[1].

Treatment is surgery which should be done as early as possible to avoid complications (infection, mass effects, hemorrhage, rupture, or neoplasia)[6]. Complete surgical excision is the treatment of choice owing to the possibility of degeneration and ease of removal[6]. These have an excellent prognosis with no recurrence post-surgery.

Foregut duplication cysts of the esophagus are rare, so a high index of suspicion is needed for diagnosis. It should be kept in the differentials of persistent wheezing in infants who do not respond to conventional treatment.

References

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