

Wheezing in Children – Keep in Mind Unusual Causes

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Clinical Images

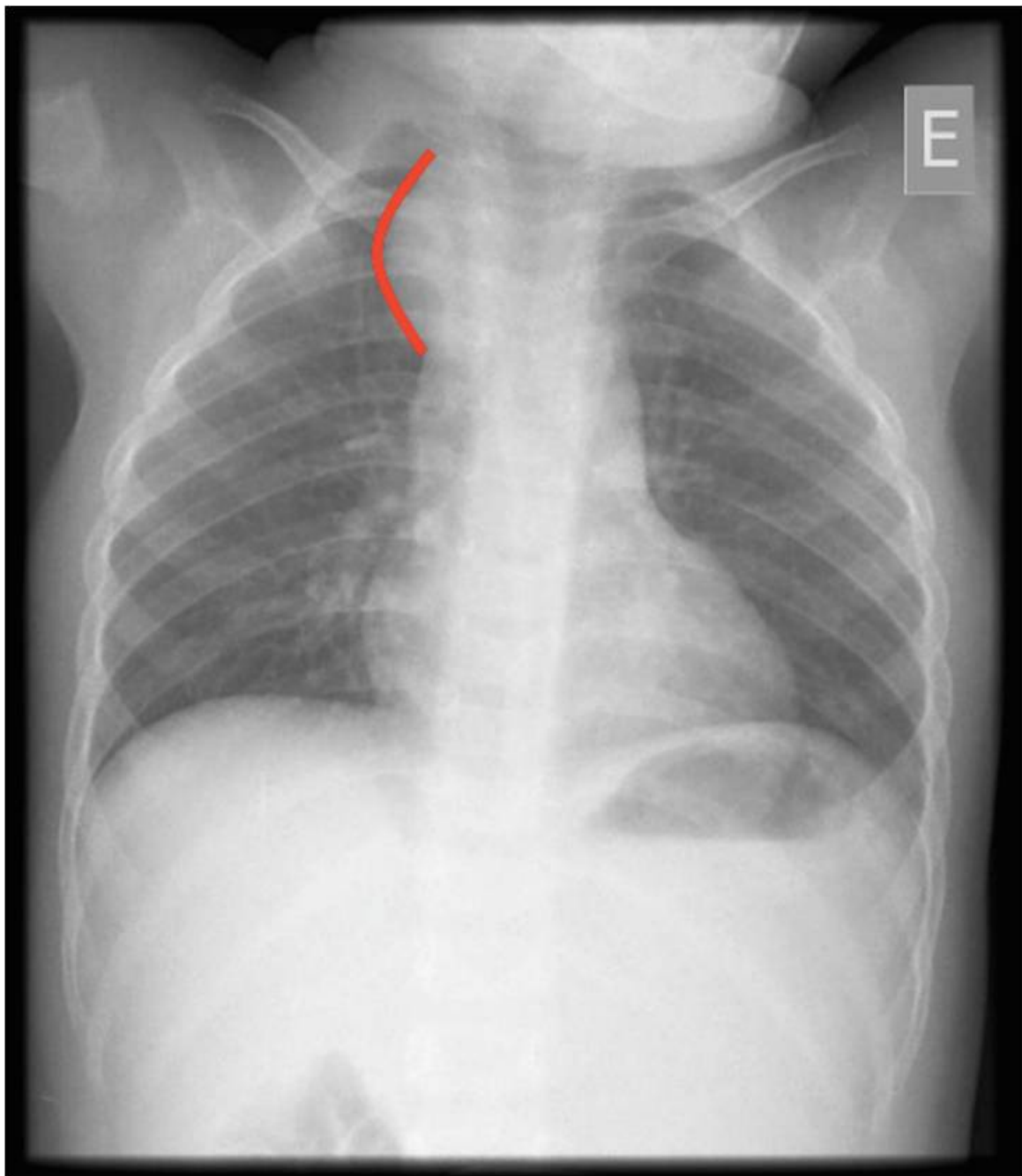


Figure 1: Chest X-ray with a hypotransparent image in the right upper lobe.

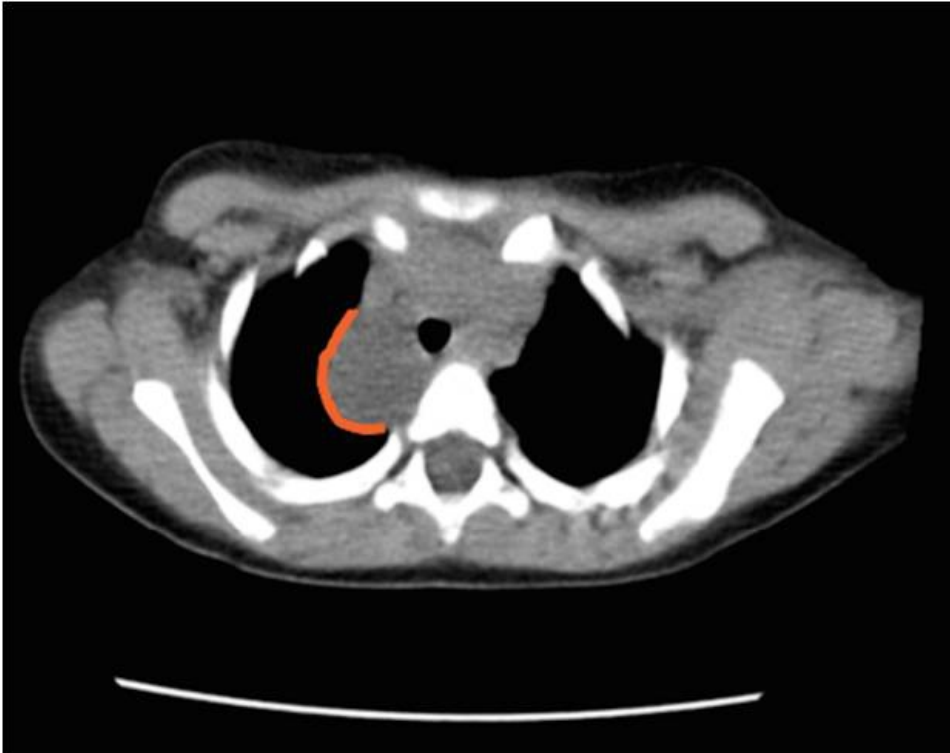


Figure 2: Thoracic CT scan showing a nodular paramediastinic mass.

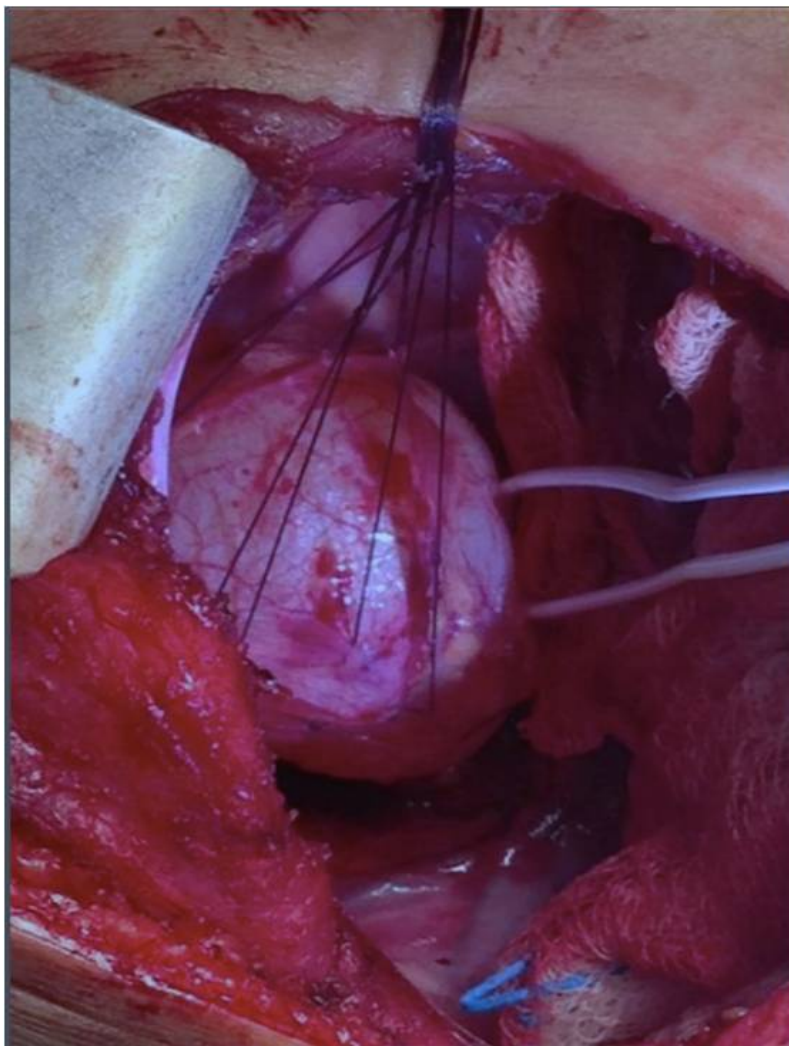


Figure 3: Bronchogenic cyst next to azygos vein found during surgery.

Description

We present a 18 months male child with episodes of recurrent wheezing without relevant neonatal or family history. He was admitted to the emergency department with febrile seizure in the context of upper respiratory infection. The chest X-ray showed a hypotransparent image in the right upper lobe with regular contours (Figure 1). The thoracic computerized tomography scan (Figure 2) revealed an upper right paramediastinic nodular image with defined and uniform limits, about 3x3x2,5 cm, compressing the trachea with liquid density. Thoracotomy was planned at the age of 3 years old and a bronchogenic cyst (BC) was found, causing compression over great vessels and displacement of trachea and esophagus (Figure 3). Histopathology was consistent with BC. A postoperative pulmonary atelectasis resolved with conservative treatment.

Key points

- Bronchogenic cyst, although rare, is one of the most common malformations of the lower respiratory tract and results from abnormal embryological development of primitive gut, between the 5th and 7th week of gestation [1]. It is frequently located in the middle mediastinum.
- It often manifests by recurrent cough, difficulty of breathing and recurrent respiratory infections resulting from compression of adjacent structures or cyst infection. However, one third of patients may present asymptomatic at diagnosis [2]. CT scan, magnetic resonance and bronchoscopy can help in the exact definition of the cyst anatomy.
- Given the risk of complications such as bleeding, infection, malignant degeneration (adenocarcinoma, rhabdomyosarcoma) and compression of vital structures excision is recommended.
- Treatment of bronchogenic cysts consists of complete surgical resection, enucleation or lobectomy due to the potential complications and risk of malignant change [1]. Prognosis is excellent in the case of total excision [3].

References

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