Azygos lobe in a 4-month old infant

The azygos lobe is an anatomical variant that develops during the embryological stages of lung development. It is caused by a pleat of visceral pleura dragged by the azygos vein during its descent into the thorax (González et al, 2009). It is an infrequent pulmonary malformation and is present in 0.2–1.2% of the population (González et al 2009; Wall and Stawicki, 2017). This malformation is seen in the right hemithorax and on chest X-ray manifests as the 'comma sign' which corresponds to an azygos fissure (*Figure 1*) (González et al, 2009).

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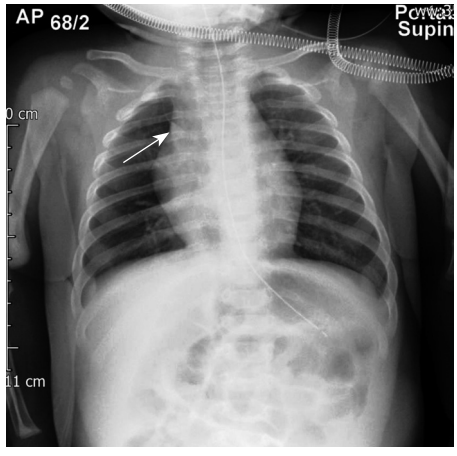
A 4-month-old infant presented with a respiratory tract infection with increased respiratory rate and slightly low oxygen saturations of 93% on air. Clinical examination confirmed scattered wheeze, few crackles and upper airway conducted noises.

Figure 1. Chest X-ray showing azygos lobe (arrow).



A clinical diagnosis of bronchiolitis was made. Chest X-ray (*Figure 1*) revealed clear lung fields and an incidental finding of azygos lobe in the right hemithorax. The infant made a full recovery and was discharged home with explanation and reassurance.

The azygos lobe, like any other pulmonary tissue, can become part of pathological conditions such as cancer or bullae (González et al, 2009). Knowledge of the anatomy of the azygos lobe is important as it may present challenges during thoracic surgical interventions (Wall and Stawicki, 2017). Spontaneous pneumothorax associated with the azygos lobe has been reported in both adult and paediatric patients (Wall and Stawicki, 2017). **BJHM**

González R, Farias J, Seguel E, Alarcón E. Azygous lobe. J Am Coll Surg. 2009 Nov;209(5):673. https://doi.org/10.1016/j.jamcollsurg.2009.04.020

Wall J, Stawicki S. The azygos lobe. Int J Acad Med. 2017;3(3) S1:189–190. https://doi.org/10.4103/IJAM.IJAM_10_17

Spontaneous azygos vein thrombosis: a rare entity

A 60-year-old man with a recent diagnosis of cholangiocarcinoma presented with abdominal pain and distension. He underwent contrast-enhanced computed tomography of the chest, abdomen and pelvis which showed ascites with multiple liver lesions suggestive of metastasis. Incidentally, he also had a well-defined filling defect within the azygos vein, in keeping with an azygos vein thrombosis (*Figure 1*).

Azygos vein thrombosis is extremely rare, and most cases in the literature had an underlying azygos aneurysm (Nakamura et al, 2007; Ishikura et al, 2010; Yang et al, 2011).

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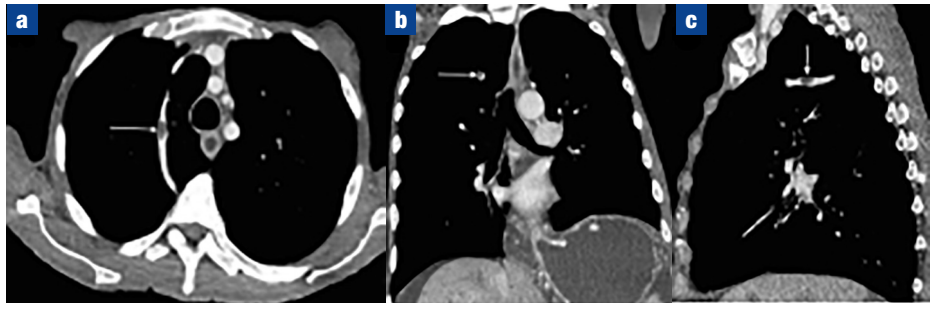
Spontaneous thrombosis of an otherwise structurally normal azygos vein should instigate a search for an underlying cause. In this case, this is presumably secondary to the prothrombotic status of the patient owing to the underlying malignancy. There is a high risk of developing pulmonary embolism and the prompt diagnosis of azygos vein thrombosis helps to prevent this complication. **BJHM**

Ishikura H, Kimura S, Fukumura Y, Ohtani T. 2010. Resection of an azygos vein aneurysm with thrombosis. Gen Thorac Cardiovasc Surg 58(4):209–211. https://doi.org/10.1007/s11748-009-0512-3

Nakamura Y, Nakano K, Nakatani H, Fukuda T, Honda K, Homma N. 2007. Surgical exclusion of a thrombosed azygos vein aneurysm causing pulmonary embolism. J Thorac Cardiovasc Surg 133(3):834–835. https://doi.org/10.1016/j.jtcvs.2006.11.012

Yang JY, Kim DH, Lee JH, Suk EH. 2011. Evaluating a thrombosed azygous vein aneurysm combined with pulmonary arterial thromboembolism by ECG-gated multidetector CT: a case report. Korean J Radiol 12(6):754–756. https://doi.org/10.3348/kjr.2011.12.6.754

Figure 1. Contrast-enhanced computed tomography of the chest in the portal venous phase shows a well-defined filling defect within the azygos vein in the (a) axial, (b) coronal and (c) sagittal planes in keeping with azygos vein thrombosis. Note the lateral position of the azygos vein within the azygos fissure and the presence of the azygos lobe medial to it.



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