



The azygos lobe: An unusual anatomical variation

Fani Ribeiro^{1*}; Tiago Valente¹; Micaela Martins²; Gorete Jesus¹

¹Internal Medicine Department, Centro Hospitalar do Baixo Vouga, Aveiro, Portugal

²Infectious Disease Department, Centro Hospitalar do Baixo Vouga, Aveiro, Portugal

***Corresponding Author(s): Fani Ribeiro**

Internal Medicine Department- Centro Hospitalar do Baixo Vouga, Avenida Doutor Artur Ravara, 3810-193 Aveiro, Portugal

Tel: +351-234-3783-00

Email: fanisusana87@gmail.com

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Clinical Image

Description

A 47-year-old male was admitted in the emergency department with a history of breathlessness, cough and fever for the past week. Based upon the history, clinical examination, laboratory results and imaging studies a diagnosis of viral upper respiratory infection was made. His chest radiograph showed an azygos lobe of the lung with a thin fissure separating it from the rest of the right upper lobe and a tear-shaped shadow due to azygos vein (Figure 1).

The azygos lobe is a rare but normal anatomic variant of right upper lung radiologically seen in 0.4% of population [1]. It is the result of a failure in the migration of the posterior cardinal vein (a precursor of the azygos vein) during embryological development that when laterally displaced creates a deep pleural fissure into the apical segment of the right upper lobe. 2 As it has no bronchi, veins and arteries of its own, it is not a true pulmonary lobe, but rather an anatomically separated part of the upper lobe [2,3].



It may be confused with a bullae, cavitation, abscess or lung mass if consolidated but it is generally an incidental finding of clinical unimportance. Pulmonary disorders such as infections, tumors or pneumothorax may develop within this lobe and some authors suggest that the pathological processes differ from those developing in the rest of the lung due to the presence of the mesoazygos that serves as a barrier to the dissemination of infection or malignant cells. Its presence may also compromise the success and increase the risk of thoracic surgical procedures [3].

Although the azygos lobe is not associated with any morbidity, the recognition of this anomaly is important in order to prevent misdiagnosis, unnecessary interventions and surgical complications.

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Figure 1: Azygos lobe chest x-ray image. AL, azygos lobe; AF, azygos fissure; AV, azygos vein.