

Pulmonary Azygous Lobe-An Anatomical Variant

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INTRODUCTION

The azygous lobe is a normal variant of pulmonary anatomy incidence azygous lobe has been reported to range from 0.2 to 1.2%.¹ Normally it can be detected by routine chest radiography and other imaging methods. As due to azygous lobe on chest roentgenograms sometimes leads to misdiagnosed and it is important for surgeons to know to avoid potentials problems during surgery.² Since procedures like thoroscopy as well as bronchoscopy is widely used and the knowledge about the presence of azygous lobe must be considered. Very rarely, tumors, pneumothorax or extralobar pulmonary sequestrations occur in this lobe.¹ Usually they are asymptomatic. However physician as well as surgeon who are involved in respiratory care should know the presence of azygous lobe and its clinical significance.

ABSTRACT

Pulmonary azygous lobe is one of the common lung malformations. There is only few article about azygous lobe. Its a small accessory lobe sometimes found on the upper part of the right lung, separated from the rest of the upper lobe by a deep groove lodging the azygous vein. This reports describes the presence of azygous lobe, a rare anatomical variant, encountered during chest x-ray discussion. We describe here the anatomical basis and the clinical significance of azygous lobe.

KEY WORDS

Anatomical variants, azygous lobe, significance

CASE REPORT

A ninety years old gentleman from wörth, presented with a history of dizziness. He is a known case of Arterial Hypertension and Parkinsonism under regular medication. However he gives no history of recurrent chest infection, shortness or breath or haemoptysis in the past his routine tests were within normal limits. His chest x-ray posterior anterior view shows presence of azygous lobe in the right upper lobe as shown in fig. 1 and fig. 2.

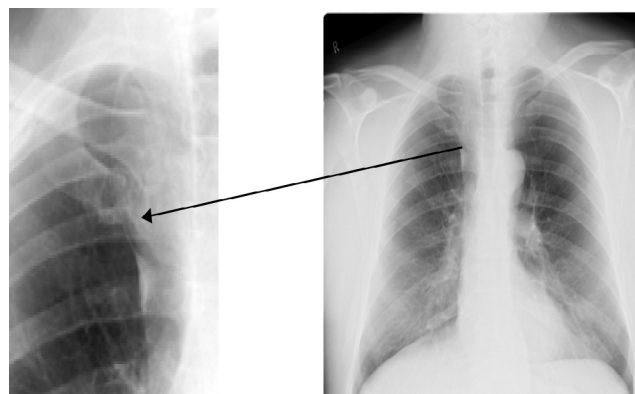


Figure 1 & 2. chest x- ray posterior anterior view shows presence of azygous lobe in the right upper lobe as shown in figure 1 and figure 2.

DISCUSSION

In 1877 Heinrich Wrisberg first described the presence of azygous lobe.³

The azygous lobe has been documented in both right and left lungs. The anomaly has been found in frequency about 1.0 % during anatomic dissections and 0.4% on chest radiograms. In normal human anatomy, the azygous vein courses cephalad along the vertebral column, then arches forward above the root of the lung. It then enters the superior vena cava, which enters the pericardium and right atrium embryologically the development of the right lung bud must pass laterally under the arch formed by the right posterior cardinal vein. Failure of the lung bud to clear this cardinal vein results in splitting of the right lung.⁴ And thus the vein becomes encased by the development of lung tissue so thereby forming an azygous lobe. The presence of azygous lobe is particularly important in thoroscopic procedures like symphectomy and for therapeutic drainage to facilitate the removal of excessive pulmonary secretions.

Anatomy of the bronchial branching is important for draining of azygous lobe. One of the studies done by Takamitsu, Toshio

and Akinori describes details of the anatomy of the azygous lobe in a cadaver and its therapeutic significance of drainage. The studies suggest that therapeutic drainage should be based on the branching pattern of the bronchial tree. On this basis it has been suggested that right-side neck flexion of at least 30 degrees allows better drainage. Procedures like thoracoscopy sympathectomy great care should be taken to avoid injury to the azygous vein.

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