

Azygos lobe presenting as right para-tracheal shadow

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CASE SUMMARY

Fifty-seven years old male patient, non-addict, unemployed, was referred to Pulmonary Medicine OPD by anesthesiologist, in view of right paratracheal shadow, detected as an incidental finding during routine preanesthetic check up. The patient was posted for left malleolar bursa excision surgery.

The patient did not have any respiratory complains, when he visited Pulmonary Medicine OPD. The patient had undergone angiography 7 months ago which did not reveal any abnormality. He was operated for fracture neck femur 13 years ago.

On examination the patient was afebrile, with a pulse rate of 80 beats per minute, regular, and had blood pressure of 140/90 mmHg, respiratory rate of 20/min. Rest of general examination and respiratory system examination did not reveal any abnormality. Breath sounds were equal on both sides.

INVESTIGATIONS

Hb: 9.6 gm%, WBC: 11,000, N: 70, L: 20, E: 03, M: 05, ESR: 79, Platelets: 2,80,000, BUN: 18 mg, Serum creatinine: 1.0 mg/dl, Total proteins: 7.5 gm/dl Albumin: 3.6 gm/dl, Globulin: 3.9 gm/dl, Total Bilirubin: 0.6 mg/dl, Direct Bilirubin: 0.2 mg/dl, SGPT: 13 IU, SGOT: 19 IU, Alkaline phosphatase: 77 KA, FBS: 93 mg%, PLBS: 155 mg%, Spirometry was within normal limits.

CXR: Right paratracheal shadow.
HRCT Chest: Figure 1 a and b.

QUESTIONS

What is the diagnosis?

- Q1. Enlarged thymus
- Q2. Substernal goitre
- Q3. Pleural Bands
- Q4. Azygos lobe

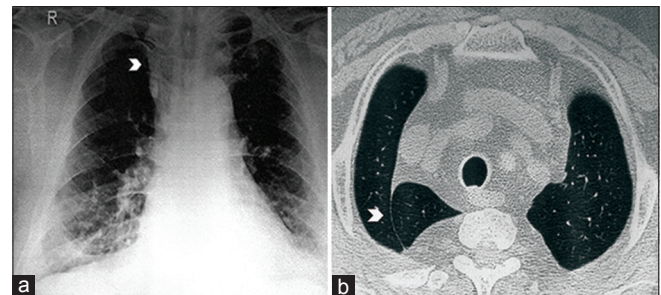


Figure 1: (a) CXR: Right paratracheal shadow. (b) CT thorax image

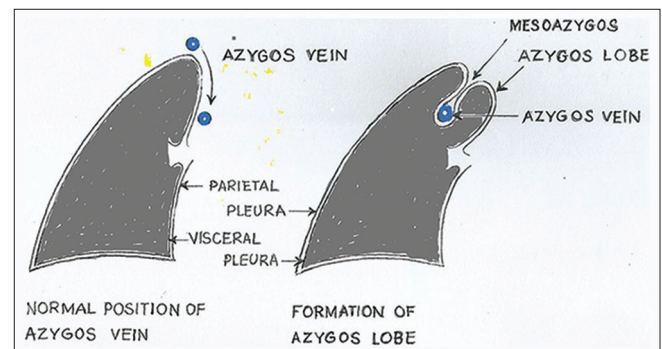


Figure 2: Formation of an azygos lobe

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ANSWER

Right azygos lobe

HRCT chest: Right azygos lobe

DISCUSSION

An azygos lobe is a rare anomaly of lung and the incidence of the same varies from 0.4% to 1%.^[1] Azygos lobe was first mentioned by Wrisberg in 1778 from anatomical studies, described as “Lobus Wrisbergi.” An azygos lobe is formed when a precursor of the azygos vein fails to migrate over the apex of the lung during fetal life, instead of course through the lung dragging lung with it, the parietal and visceral pleura [Figure 2]. The four layers of pleura are known as “Azygos Fissure.” Since there is no corresponding alteration in segmental architecture, “Lobe” is a misnomer.^[1] Embryologically, a part of upper lobe of the right lung may come to lie medial to the azygos vein. This part is called the azygos lobe. In this condition, the azygos vein is suspended from the wall of the thorax by a fold of parietal pleura (mesoazygous).^[2] It is commonly seen in males and has also been reported on the left

side.^[3] An azygos lobe is not susceptible to disease.^[1] However, multiple authors have reported spontaneous pneumothorax associated within the azygos lobe in adult and pediatric patients.^[4-6] Clinically, the knowledge of azygos lobe anatomy is important during thoracic surgical approaches.^[3]

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