

'A Bilobed Right Lung': Case Report

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Abstract: The commonest lobar pattern in Lungs is that, the Right Lung has 3 lobes and the left has 2 lobes. During the routine anatomy dissection, we observed one cadaver which had a bilobed right lung, whereas the left lung had the regular lobar distribution. Also there was only the oblique fissure present in the Right lung, the horizontal fissure being absent disturbing the classical pattern where the right lung has two fissures namely an oblique and a horizontal. Anatomical knowledge of such anomalies is important for the surgical resections of the lobes of lung and other surgeries performed by various surgeons.

Key words: Bilobed, Fissure, Bronchopulmonary segments, Lobectomies.

Introduction:

The two chief organs of respiration are the right and left lungs, that are the necessities of the survival before anything else. The classical lobar pattern of lungs is that, the Right lung has three lobes i.e. upper, middle and lower divided by 2 fissures i.e. An Oblique and a horizontal fissure. The left Lung has two lobes i.e. upper and lower divided by a single oblique fissure¹.

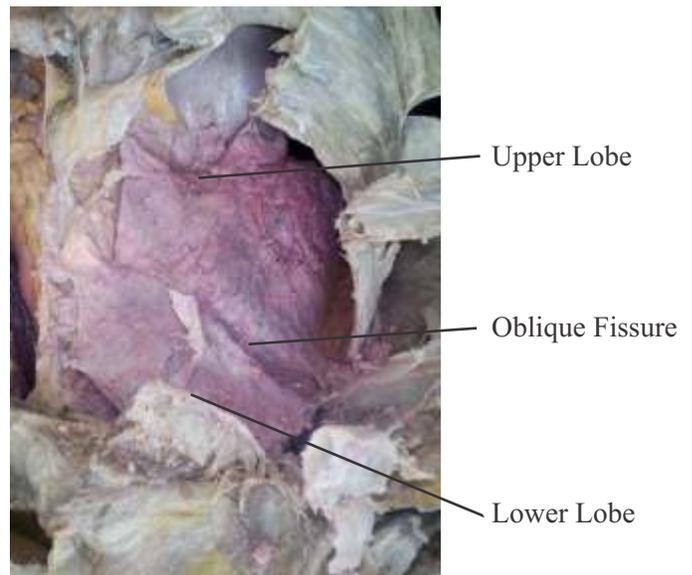
In the present case, we report the anatomical variation of the right lung which is a bilobed lung with a single oblique fissure. It is necessary to have the anatomical knowledge of such variations so as to perform the lobectomies and surgical resections.

Case Report:

During the routine anatomy dissection (thoracic region) of a 50 years old cadaver, we found an anatomical variation where the right lung had two lobes, upper lobe and lower lobe and a single oblique fissure. The structural arrangement in the hilum was found normal. The photograph was taken in situ (fig 1). There was no other gross anomaly other than the absence of horizontal fissure and the middle lobe. The left lung was found to have the classical pattern of distribution with an oblique fissure and the two lobes upper and lower lobe.

Observations:

The Right Lung had two lobes upper and a lower which were sub divided by an oblique fissure which originated 7cms from the apex on the vertebral part of the mediastinal surface continued upwards laterally cutting the lung into two lobes further continued on the costal surface anteriorly running downwards medially and crossed a



distance of 2cm above the commencement of inferior border. The left lung had the classical pattern of two lobes subdivided by an oblique fissure, thus there was no anomaly in the left lung.

Discussion and Clinical implications:

A defect in the embryology of lung leads to the anomalous pattern of fissures and lobes. During the embryonic period there is appearance of many fissures that divide the lung into segments which later on obliterate as a result there occurs to be a single fissure on the left side and two fissures on the right side. Non obliteration of these results in the formation of accessory lobes^{2,3}. The fissures separate the main lobes of the lungs. They even enable the expansion of the lung during respiration⁴.

The knowledge of the anomalous lobar pattern of the lungs is important for its implication in the surgeries such as lobectomies, surgical resections etc. It is important to diagnose such anomalies before conducting any surgeries or procedures related to the lung pathologies. Therefore one must go through the CT and MRI studies thoroughly with the knowledge of such anomalies. With this intention the above case is being reported.

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