Missing Oblique Fissure on Left Lung

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ABSTRACT

Lungs are respiratory organs located in chest. They help us to breathe. So any variation of the lung anatomy can have clinical implications in healthcare involving respiratory pathology. This study aims to report an unusual case of a missing oblique fissure on the left side and atrophy of right side.

Keywords: Oblique Fissure; Lungs; Respiratory organs; Cadaveric lungs

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INTRODUCTION

Lungs are a pair of respiratory organs located in the thoracic cavity on either side of heart and mediastinum covered with pleura and surrounded by the pleural fluid. The right lung usually has two fissures and three lobes. The left lung has one fissure and two lobes. There are ten bronchopulmonary segments on each side aerated by a tertiary bronchus. In the hilum of left lung there are two pulmonary veins one pulmonary artery and one principal bronchus along with bronchial arteries veins and bronchopulmonary nodes.

MATERIAL AND METHODS

While doing routine dissection and demonstration of lungs it was found that one of the lungs on the left side showed a rare variation of an absent left oblique fissure. It was shorter than normal. The cardiac notch was not so well demarcated. The hilum was seen to have blood vessels and airway openings. No tumor or mottling was seen. The lungs appeared fresh purple pink in color. The right-side lung was under.

DISCUSSION

There are a lot of variations reported all over the world on cadaveric lungs obtained from dissection halls in medical colleges. Almost half of the lungs follow the textbook description and remaining half are full of variation.

The recent interest was aroused in the wake of COVID-19 pandemic with soaring numbers of infection among various ethnic groups all over the world. As has been seen on radiographic imaging several times the presence or absence of fissures, lobes and lung morphology has an impact on cure rate and spread of infections with sequelae this study reports a rare missing oblique fissure on the left lung. Various studies have reported variations in lung morphology. Though more variations are found in right lung fissures and lobes due to two fissure and three lobes, there is lesser variation found on left side and incomplete fissures are commoner than a missing or absent fissure on left side. This type is having variable frequency as reported ranging from 10%in one study [1] to 8% in another [2] and 7.5% in a third group [3] and 4%in the fourth group [4] and 0% in the fifth group [5].

CONCLUSION

Many authors have previously cited the abnormal findings on lungs including incomplete fissures, absent fissures or accessory fissures giving a wide array of possible outcomes if lung infection ensues. It has been found that the fissures and bronchopulmonary segments limit the infection to a small area so a missing fissure could cause a faster spread of the infection.

CONFLICT OF INTEREST

None

Figure 1: Anterolateral surface of left lung.

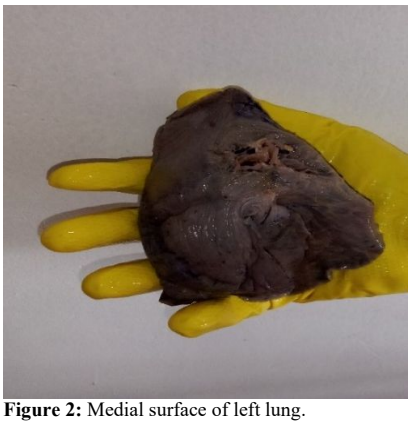

Figure 2: Medial surface of left lung.

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