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Review Article

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PULMONARY ALVEOLAR MICROLITHIASIS.

Dr. Shiwani Chowalta* and Dr. Vishal Kaundal

Department of Radio-Diagnosis IGMC Shimla.

***Corresponding Author: Dr. Shiwani Chowalta**

Department of Radio-diagnosis IGMC Shimla, Himachal Pradesh, India.

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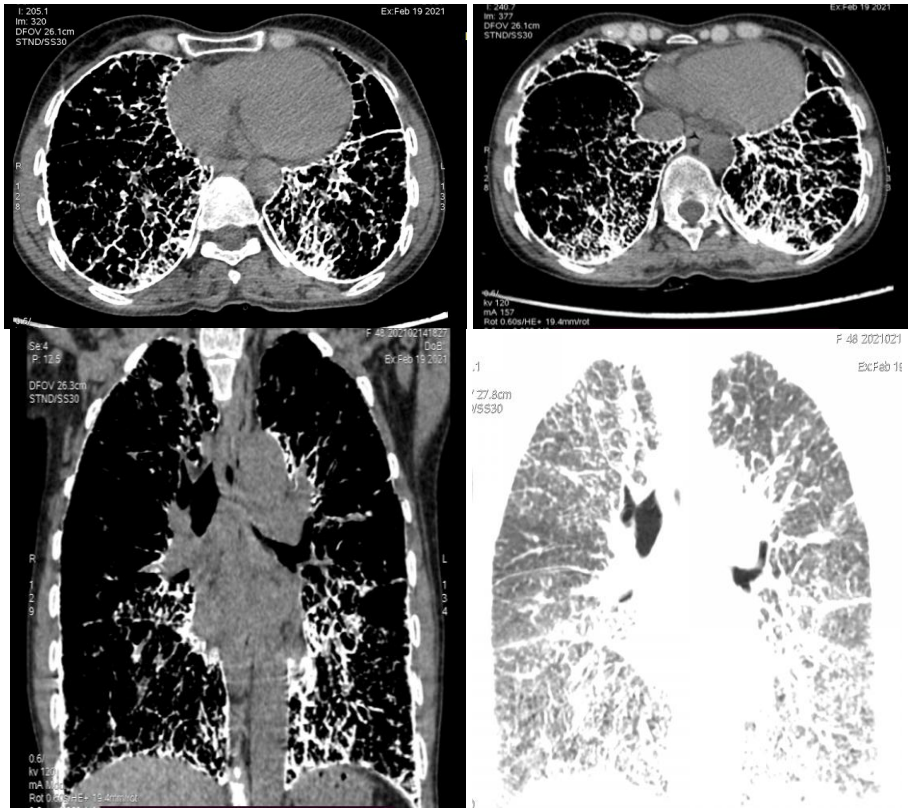
INTRODUCTION

Pulmonary alveolar microlithiasis (PAM) is a rare autosomal recessive condition characterised by widespread intra-alveolar deposition of innumerable minute calculi called microliths. Both sex are equally affected with men predominance. Men may be associated with testicular microlithiasis.

RELAEVANT HISTORY

We present a case of 48 years old female with complaints of shortness of breath with dry cough.

IMAGING FINDINGS



HRCT CHEST AXIAL AND CORONAL IMAGES : shows presence of calcified interlobular septa(pathognomic of pumnomary alveolar microlithiasis) with cracy paving appearance and suroounding ground glass haze.

RESULTS

We were accurately able to diagnose the diagnostic and pathognomic features of Pulmonary Alveolar Microlithiasis on HRCT Chest

DISCUSSION

PAM is rare autosomal recessive disease and affects both sexes. The imaging modality to diagnose PAM include chest radiography, chest computed tomography and high-resolution computed tomography (HRCT); the latter, listed in increasing order of invasiveness,

bronchoalveolar lavage (BAL), transbronchial biopsy, open lung biopsy and autopsy. Disease progression and different degrees can be subdivided into four evolutionary phases. The first phase is known as precalcific stage. The radiological pattern is not yet typical due to the small number and lesser calcification of the microliths, it is occasionally observed in asymptomatic children. The second phase shows the typical radiological picture: the lungs appear "sandy", featuring diffuse, scattered calcific micronodules with a diameter of <1 mm. These are generally present in childhood or adolescence. In the third phase the number and volume of the opacifications increase. The picture becomes more granular, nodular and often confused due to the initial thickening of the interstitial weave, which partly masks the micronodules. It is more commonly seen in young adults. By the fourth phase, the number and size of the calcific deposits have grown even more, and there is intense calcification of the interstitium and sometimes the pleural serosa, which makes the lungs appear almost entirely opaque. They thus have the overall aspect of "white lungs" due to the diffuse presence of calcification. In this phase, apart from interstitial calcific fibrosis, there may be paraseptal emphysema, large bubbles or air cysts in the upper lobes, as well as pneumothorax and areas of ossification. This is generally seen in older adults. A "crazy paving" pattern on chest HRCT with calcifications along the interlobular septa may be considered diagnostic, even pathognomonic, of the third and the fourth phases of PAM. The extent and severity of PAM generally depend on the patient's age and the speed of progression of the disease.

CONCLUSION

PAM is effectively diagnosed with HRCT Chest showing the diagnostic and pathognomic feature of PAM

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