ORIGINAL RESEARCH PAPER

Radio Diagnosis

A RARE INCIDENTAL FINDING OF SOLITARY FIBROUS TUMOUR OF THE PLEURA WHICH WAS DIAGNOSED IN A PATIENT OF 65-YEAR-OLD WITH COVID-19 PNEUMONITIS ON FURTHER INVESTIGATION.

KEY WORDS:

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ABSTRACT

Solitary fibrous tumour of the pleura, is a rare benign pleural-based tumour that accounts for less than 5% of all tumours involving the pleura. It is difficult to predict the true incidence and prevalence of solitary fibrous tumours because majority of patients with these masses remain asymptomatic.

INTRODUCTION:

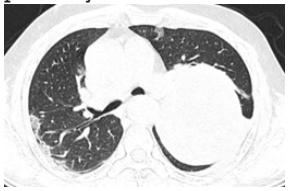
Solitary fibrous tumours are rare mesenchymal neoplasms that most commonly affect the pleura but have also been seen in a number of other locations including mediastinum and lung. Extra thoracic localized fibrous tumours have been reported in the abdomen, the head and neck, and the central nervous system. Solitary fibrous tumours arising from the pleura, have been estimated to occur with a frequency of 2.8 per 100,000 individuals. Overall, solitary fibrous tumours account for less than 2% of all soft-tissue tumours. These tumours have equal prevalence in both men and women, most frequently occurring in the 6th and 7th decades of life.

Case report: A 65-year-old male presented with cough and breathlessness for 7 days with COVID-19 RT-PCR positive status for a chest X-ray.

X ray chest showed a large pleural-based mass, relatively well circumscribed mass. Which formed an obtuse angle with the chest wall with absence of any calcification, rib destruction, and pleural effusions. Few patchy small areas of pneumonic changes were also seen in peripheral and para cardiac locations.

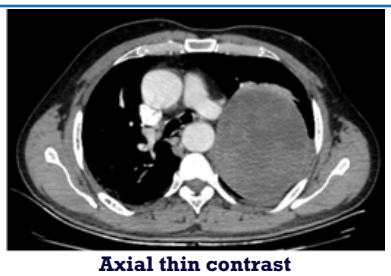
Further an HRCT chest plain and contrast and MRI was advised.

HRCT showed a large well defined soft tissue attenuation heterogeneously enhancing mass lesion with incomplete border showing broad based pleural lesion with multiple non-enhancing necrotic areas within measuring approximately 11 x 12 x 9.5 cm (AP x TR x CC) sized is seen in the left hemithorax with multifocal bilateral patchy areas of ground glass opacities associated with few small air space consolidation are seen scattered in bilateral lung parenchyma in centrilobular and peripheral distribution.



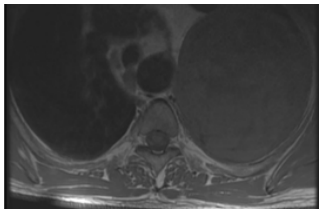
Lung window

Axial thin plain

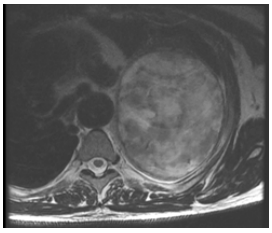


Axial thin contrast

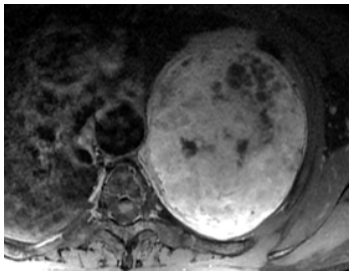
MRI also showed a large lobulated well defined altered signal intensity lesion in the left hemithorax. The lesion appeared hypointense on T1W, hyperintense on T2W and STIR images and showed heterogeneous enhancement with multiple non-enhancing necrotic areas within on post contrast study. No neural foraminal or intraspinal extension was noted.



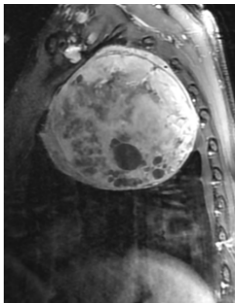
TIW axial



T2W axial



Axial post contrast



Sagittal post contrast

DISCUSSION:

Solitary fibrous tumours are rare primary pleural neoplasms which may grow to large sizes and typically affect symptomatic men and women over the age of 40 years. Whereas small solitary fibrous tumours may be discovered incidentally on chest radiographs of asymptomatic individuals. These lesions may exhibit the characteristic imaging features of pleural masses, classic findings of focal pleural disease which include the "incomplete border" sign, obtuse or right angles against the adjacent pleura, fissural location, or mobility within the pleural space. The diagnosis should be considered in symptomatic adults who present with solitary, large, lobular, heterogeneous intrathoracic masses with absence of local invasion, lymphadenopathy, or

metastatic disease. However, the majority of solitary fibrous tumours exhibit heterogeneous attenuation on HRCT scans, characterized as intralesional geographic, focal or linear areas of low attenuation which may often correlate with haemorrhage, necrosis, or cystic changes. Calcification may occur in one-fourth of cases. Atelectasis of the adjacent lung and mass effect on the mediastinum are also common associated findings. MR imaging typically demonstrates intrathoracic lobular masses of heterogeneous signal intensity with both T1- and T2-weighted sequences. Internal low-signal-intensity septa on T2-weighted images are common. However, in our case an incidental finding of mass lesion on a chest x ray for a patient who came for a routinely prescribed chest radiograph in this COVID pandemic prompted us to probe further and diagnose it.

CONCLUSION:

In view of ongoing pandemic of COVID-19 pneumonitis diagnosis of a rare incidental finding possesses a diagnostic challenge which further should be investigated and diagnosed appropriately.

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