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PULMONARY LANGERHANS CELL HISTIOCYTOSIS MASQUERADES AS MILIARY TUBERCULOSIS

Pulmonary Medicine

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ABSTRACT

Pulmonary Langerhans cell histiocytosis is an uncommon, smoking –related, interstitial lung disease that primarily affects young adults. Here in we present a case of young smoker, who presented like miliary Tuberculosis on chest x-ray.

KEYWORDS

Pulmonary Lngerhans cell Histiocytosis, interstitial lung disease, miliary tuberculosis.

INTRODUCTION

Pulmonary Langerhans cell histiocytosis is an uncommon, smoking –related, interstitial lung disease that primarily affects young adults. Usually, lung involvement occurs in isolation; less frequently, involvement of other systems, for example, bone, skin, pituitary gland, is seen. Most patients with Pumonary Langerhans cell histyocytosis present to medical attention in young adulthood (20-40years of age).

The pathologic hallmark of pulmonary langerhans cell histiocytosis is the accumulation of Langerhans and other inflammatory cells in small airways, resulting in nodular inflammatory lesions. Imaging of the chest with high resolution CT scanning may show characteristic nodular and cystic abnormalities. Lung biopsy is necessary for a definitive diagnosis, although may not be required in instances were imaging findings are highly characteristic. All smokers must be counselled on the importance of smoking cessation, which may result in regression of disease.

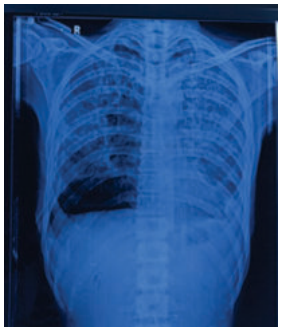
CASE REPORT

A 30 year old man , watchman by occupation, smoker with pack years of 40 and with occasional alcohol use who was already started on anti-tuberculosis treatment from Mumbai as a clinically diagnosed case of miliary TB last month, presented to respiratory medicine department with complaints of breathlessness which progressed from grade II to grade IV MMRC over 15 days associated with right sided pricking type of chest pain. Patient was admitted and evaluated.

On physical examination the patient was having pulse – 102/min, Blood pressure – 110/70mmHg, Respiratory Rate – 28/min, on auscultation breath sounds were reduced on (R)mammary area, (R) infra axillary area, (R) infra scapular area. He was maintaining SpO2 – 91% on room air. Chest x-ray showed ? bilateral cystic changes with right sided pneumothorax. patient was managed by passing intercostals drain in 5th right intercostals space in mid axillary line, along with Anti- TB treatment. Despite antitubercular treatment his symptoms worsened and was decided to go ahead with a CECT thorax, which revealed numerous sub centimetric cysts are seen scattered in both the lung parenchyma, interspersed with interlobular septal thickening. Relative sparing of left costophrenic recess noted, suggestive of pulmonary langerhans cell histiocytosis. Mooderate right pneumothorax noted.

CHEST X-RAY

PATIENT ON ATT

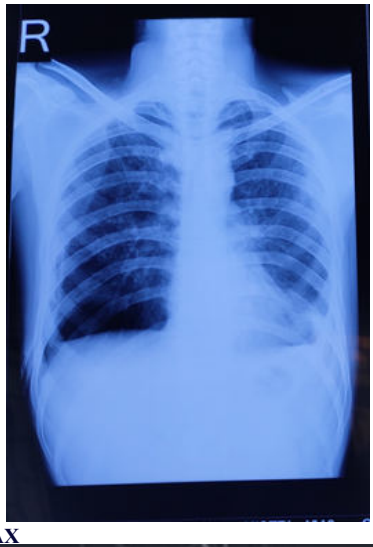


? bilateral cystic changes with right sided pneumothorax

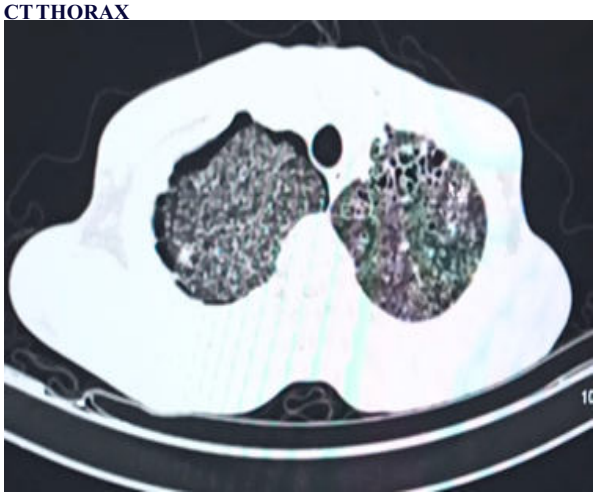
CT guided lung biopsy was done: microscopic examination: the interstitium shows inflammatory infiltrate, composed of mainly, scattered and loosely clustered cells with oval to reniform nuclei an abundant eosinophilic cytoplasm (? HISTYOCYTES) with few lymphocytes and plasma cells.

CECT Thorax and Lung biopsy results were consistent with Langerhan cell histyocytosis. Hence ATT was stopped and patient was started on corticosteroids and patient was counselled regarding smoking cessation.

PATIENTONCORTICOSTEROIDS



CT THORAX



DISCUSSION

In India, miliary mottling on chest x-ray is almost synonymous to miliary Tuberculosis because of the high incidence and prevalence of Tuberculosis in India.

In geographical areas where the prevalence of TB is high, when a patient presents with a compatible clinical picture and a chest radiograph suggestive of classical miliary pattern, it is a common practice to start the anti-TB treatment straight-away keeping in mind the potential lethality of the condition.

it is always advisable to rule out the differential diagnosis.

Our patient presented with symptoms of loss of weight, loss of appetite and cough for 3 months for which he was clinically started on anti-TB treatment from Mumbai, presented to us with complaints of breathlessness and right sided pricking type of chest pain for 15 days.
In our case, a young patient with a history of heavy smoking with pack years of 40 is present.

It is important to ask specific history that can help with the differential diagnosis.

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