

A rare case of pulmonary langerhans' cell histiocytosis in an elderly non-smoker – Case report

Abstract

Background

Adult pulmonary langerhans' cell histiocytosis (PLCH) is a rare, cystic, interstitial lung disease which commonly occur in cigarette smokers. It is commonly seen in young adults between the 3rd and 4th decades of life. We report a case of PLCH in an elderly non-smoker with significant exposure to rubber fumes.

Case presentation

A 52 year old non-smoker who has significant exposure to industrial fumes at a rubber factory for the past 25 years presented with dry cough and progressive shortness of breath (modified research medical council dyspnea scale- mMRC grade 4) for two weeks. He gave a background history of chronic obstructive airway disease for the past 4 years and a history of spontaneous pneumothorax 4 years back. High resolution computed tomography (HRCT) chest showed multiple nodular and cystic spaces of varying sizes which were bizarre shaped mainly involving the upper and middle lobes with sparing of extreme lung bases. With the above clinical history and the characteristic HRCT findings patient was diagnosed with PLCH. He was treated with oral steroids and on demand home oxygen therapy where he made a good clinical recovery.

Conclusion

PLCH does not exclusively occur in smokers. Non cigarette smoke related PLCH is rarely reported in literature and it should be an entity which should be considered in such instances. The characteristic HRCT pattern in PLCH should point towards the diagnosis even in the absence of lung biopsy.

Key Words: Pulmonary langerhans' cell histiocytosis, non-smoker, rubber fumes, corticosteroids, High resolution computed tomography