



Tropical Pulmonary Eosinophilia

-Dr. Parang Sanghavi

Tropical pulmonary eosinophilia (TPE), is a subset of the “pulmonary infiltrates with eosinophilia (PIE)” syndrome and is a hypersensitivity response to microfilariae, predominantly seen in the Indian subcontinent and other tropical countries.

The eosinophilic lung diseases can present with a variety of findings on both radiographs and CT scans. The clinical presentation is often non-specific as well. CT scan of the lungs helps to confirm and characterize the radiographic abnormalities and sometimes may provide the first clue to the diagnosis of TPE.

A typical pattern on CT scan consists of widespread ill-defined centrilobular nodules and opacities scattered throughout the lung parenchyma bilaterally (Fig. 1). Although such nodules are non-specific and can also be seen with infectious or inflammatory bronchiolitis and/or hypersensitivity pneumonitis, the diagnosis of TPE can still be made in the correct clinical setting of high serum eosinophil counts, raised IgE and positive filarial-specific antibodies. In addition, tubular bronchiectasis with peribronchial thickening, smooth septal thickening and patchy areas of air trapping are also commonly found (Fig. 2). Consolidation, cavitation, pleural effusion and lymphadenopathy are uncommon findings.

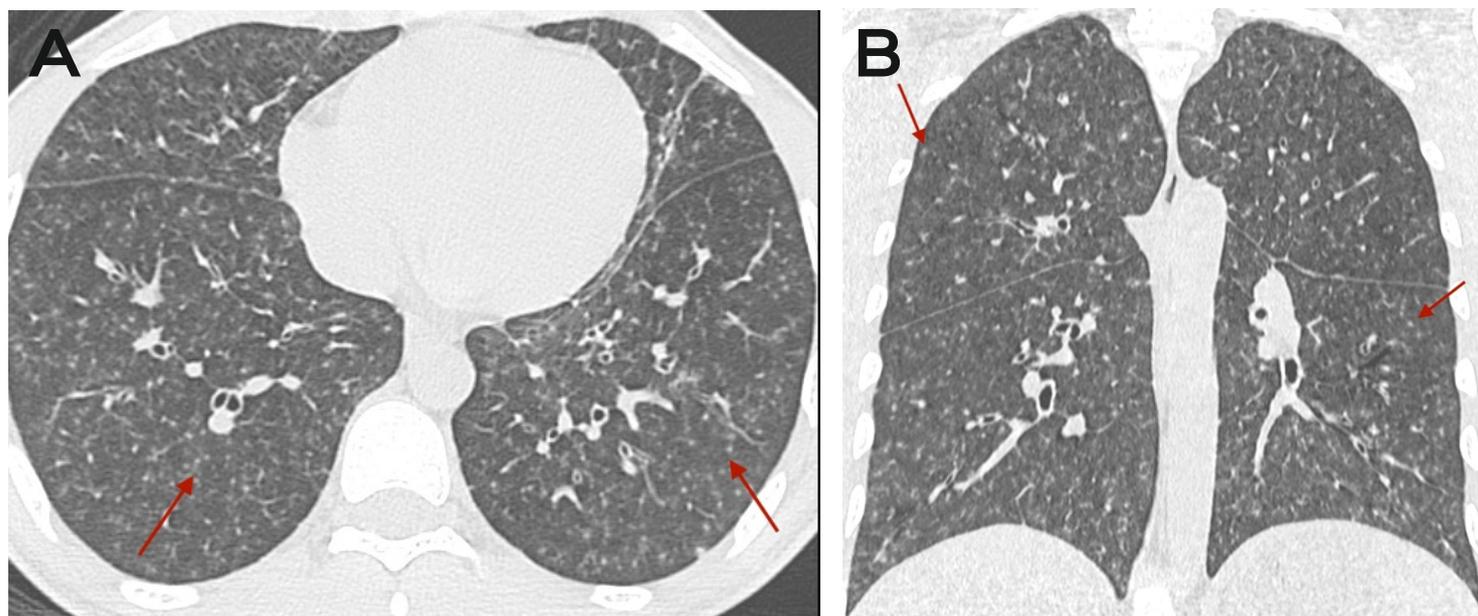


Fig. 1 (A, B): Tropical pulmonary eosinophilia (TPE). Axial (A) and coronal (B) HRCT scans of the lungs show widespread, ill-defined bronchocentric nodules typical of TPE.

*At a glance*

- ◆ TPE is seeing a resurgence – it is common and underdiagnosed
- ◆ CT scan findings may be typical in many instances and allow correct treatment to be started

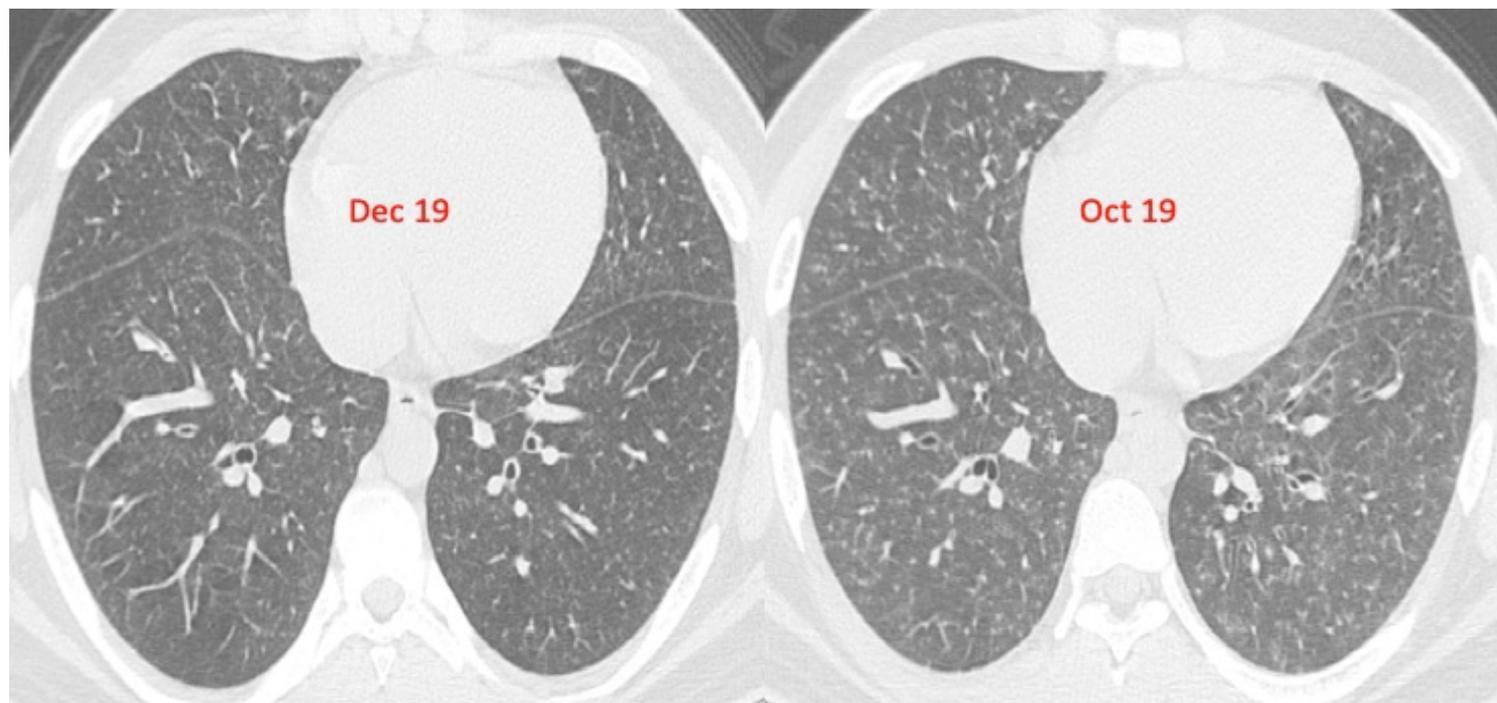


Fig. 2: TPE follow-up. The Oct 2019 scan shows extensive disease as described in Fig. 1. The Dec 2019 scan after treatment shows subtotal improvement and regression of findings.

It is important to diagnose this entity as there is a specific treatment (diethylcarbamazine – DEC) and patients usually show good response to the treatment. The radiological findings often resolve after treatment, though there may be mild residual lesions (Fig. 2).

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