

Crazy-paving

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A 44-year-old man was referred to the pulmonology unit with a 6-month history of worsening effort tolerance, chronic non-productive cough and weight loss. He was a never-smoker with no significant medical history and worked in a retail sporting-goods store. Investigations for COVID-19 and TB were negative. The patient was hypoxemic on room air with a chest X-ray (CXR) demonstrating diffuse, bilateral, predominant lower lobe infiltrates. A computerised tomography (CT) scan was performed which revealed ground-glass opacification with smooth interlobular septal thickening—a pattern consistent with ‘crazy-paving’, a term that arises from the geometric shapes formed by the thickened interlobular septa. Although the differential for ‘crazy-paving’ is extensive (Table 1), a diagnosis of pulmonary alveolar proteinosis (PAP) was suspected.

Table 1. Differential diagnosis of CT crazy-paving pattern

| Common | |
|-------------------------------------|---|
| Adult respiratory distress syndrome | Acute interstitial pneumonia (idiopathic) |
| Pulmonary alveolar proteinosis | Bacterial pneumonia |
| Less Common | |
| Pulmonary oedema | Pulmonary veno-occlusive disease |
| Drug induced pneumonitis | Radiation pneumonitis |
| Pulmonary haemorrhage syndromes | Chronic eosinophilic pneumonia |
| Cryptogenic organising pneumonia | Sarcoidosis (alveolar pattern) |
| Lipoid pneumonia | Adenocarcinoma- <i>in-situ</i> |

Bronchoscopy with bronchoalveolar lavage was performed which confirmed the typical milky-white appearance of the fluid. Although we were unable to do Granulocyte Macrophage Colony Stimulating Factor (GM-CSF) antibodies, secondary causes of PAP were excluded. A bilateral whole lung

lavage was performed with improvements in oxygenation, radiology and clinical condition.

The radiological pattern may be due to acute and chronic conditions. The clinical evolution together with the pillars of clinical pulmonary medicine—history, clinical features and associated radiological features will assist in elucidating.

