

Unexpected identification of bilateral masses in an asymptomatic heavy smoker

A 47-year-old male heavy smoker who was an ex-intravenous drugs user presented with gallstones; a preoperated chest radiograph showed hazy opacity in the right lower lobe. Chest CT revealed in the lower posterior lobes two almost symmetrical areas of consolidation with fat attenuation values (-50 Hounsfield units, figure 1). A broncholaveolar lavage did not provide pathological findings. A transthoracic core needle biopsy showed the pattern of chronic exogenous lipid pneumonia, with numerous lipid-laden macrophages (figure 2). Upon further investigation, the patient revealed that he had been taking 200 ml of mineral oil daily for 5 years to treat chronic constipation related to methadone treatment.

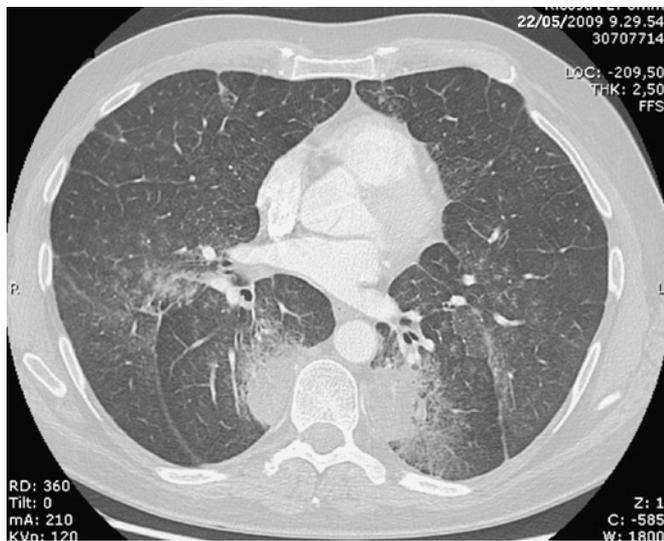


Figure 1 CT scan of the chest with the lung window showing two almost symmetrical areas of consolidation in the lower posterior lobes; surrounding parenchyma was characterised by ground-glass opacities with interlobular septal thickening, suggesting a 'crazy-paving' pattern.

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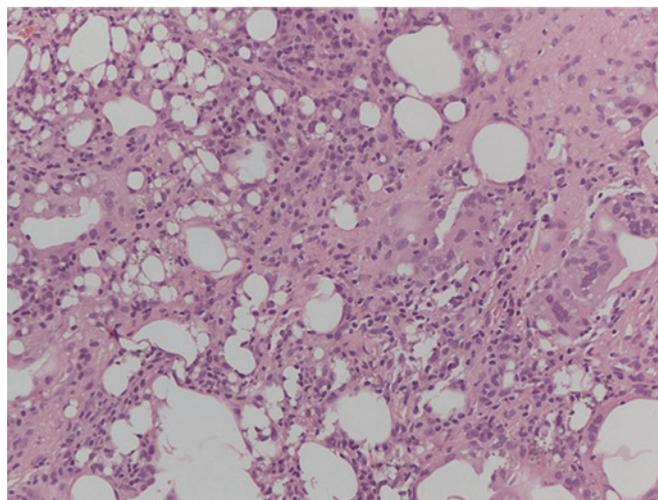


Figure 2 Transthoracic biopsy (performed using an 18-gauge needle as the guide and a 20-gauge gun to obtain the core) showing the round-to-oval vacuolar spaces representing lipid vacuoles that are washed out during tissue processing (H&E stain, $\times 400$ magnification).

Learning points

- ▶ Lipid pneumonia can be totally asymptomatic even in heavy smokers and even when lipid masses are considerable in size.¹
- ▶ Although the diagnosis of lipid pneumonia is uncommon, it still needs to be considered in adults without anatomical abnormalities predisposing to aspiration.²
- ▶ The finding of a lung mass surrounded by a crazy-paving pattern on chest CT with density values indicating the presence of fat tissue (Hounsfield units within the -60 to $+10$ range) should trigger minimally invasive bioptic techniques that may be diagnostic, avoiding surgical approaches.
- ▶ Triggers for exogenous lipid pneumonia are usually not recognised as risk factors by patients and as such are not reported.

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