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Giant cystic lung disease with mediastinal compression in a short-term heavy cannabis smoker

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This case was a 44-year-old lady who had smoked cannabis heavily for 3 years from age 41–44. Her situation was unusual for two reasons. She had been advised to smoke cannabis for some migraines she had experienced, by her previous local doctor. Other prophylactic treatments had not been tried. Second, she had unlimited access to cannabis supply smoking up to 5 g (50 cones) daily via a bong. She had 6 months of increasing breathlessness and was no longer able to walk across a room. Her previous asthma had different symptomatology.

This case is important for several reasons. First, while cystic lung disease is a suspected complication of heavy cannabis smoking, relatively few cases have been described of this manner (figure 1).^{1–4} Smoking cannabis via a bong with the breath-holding increases intrathoracic pressure and promotes cyst formation. Second, long-term cannabis is known to increase cough, sputum production and airway inflammation^{2–3 5} which itself increases airway resistance exacerbating cyst formation and coalescence. This highlights the importance of tight asthma control. Third, at 19 cm diameter, this is the largest cyst described. Fourth,

Coronal Chest C.T. Sections

Figure 1 Coronal chest CT sections. (A) Smaller cysts posteriorly (B) Larger cysts in mid-lateral plane (C) Apparent cyst coalescence (D) Giant cyst diameter 19 cm.

there is obviously pressure in this cystic system which is responsible for compressing the remaining lung, mediastinum and contralateral lung. The disease is progressive as larger cysts grow due to their high wall tension. Fifth, the complete cessation of tobacco and cannabis consumption is clearly paramount to prevent disease progression. Sixth, such images are consistent with the increasingly recognised role of cannabis in contributing to chronic airway inflammatory change. Finally and importantly from management point of view, the localised position of the cysts concentrated almost entirely within the upper right lobe suggests that there is an important place in this patient for segmental resection and lung reduction surgery.

Competing interests None.

Patient consent Obtained.

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