

Rapidly progressive cystic lung disease

Rogers C¹, Kent-Bramer J², Devaraj A², Nicholson AG², Molyneaux PL², Wells AU², Saikia S³, Maher TM², George PM^{2*}

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¹ Royal Surrey County Hospital, Guildford, United Kingdom

² Royal Brompton Hospital, London, United Kingdom

³ Ashford and St Peter's Hospital, United Kingdom

* Corresponding author

Dr Peter George

Consultant in interstitial lung disease

Royal Brompton Hospital

London

SW3 6NP

p.george@rbht.nhs.uk

0207 352 8121

A previously healthy 65-year-old female smoker presented with a 6-week history of progressive exertional dyspnoea, cough and weight loss. Aside from a 30 pack-year smoking history, there were no comorbidities or environmental exposures. On examination, resting oxygen saturations were 93% and auscultation revealed bilateral fine inspiratory crackles. The chest radiograph (Figure 1a) demonstrated bilateral reticulation and cyst formation with lower lobe consolidation and evidence of rapid progression over 6 weeks (Figure 1b). Inflammatory markers were normal and an autoimmune screen and sputum cytology were negative. A thoracic CT demonstrated rounded and non-spherical shaped cysts in all lobes, surrounded by areas of ground glass opacity or consolidation (Figure 1c-d).

Over the next 2 weeks there was further deterioration in respiratory failure ultimately necessitating non-invasive respiratory support. Despite transfer to a surgical unit and empirical treatment with intravenous methylprednisolone, the patient was too clinically unstable to undergo a lung biopsy. An autopsy revealed an invasive mucinous adenocarcinoma with no evidence of background interstitial lung disease.

This unusual case demonstrates that multi-focal lung adenocarcinoma should be considered in individuals presenting with rapidly progressive cystic destruction of the lung¹, especially when the cysts are found to be surrounded by ground glass opacity or consolidation.

¹ Lung Cancers Associated With Cystic Airspaces: Natural History, Pathologic Correlation, and Mutational Analysis. Fintelmann FJ, Brinkmann JK, Jeck WR et al. J Thorac Imaging. 2017 May;32(3):176-188.

Figure 1a



Figure 1b



Figure 1c

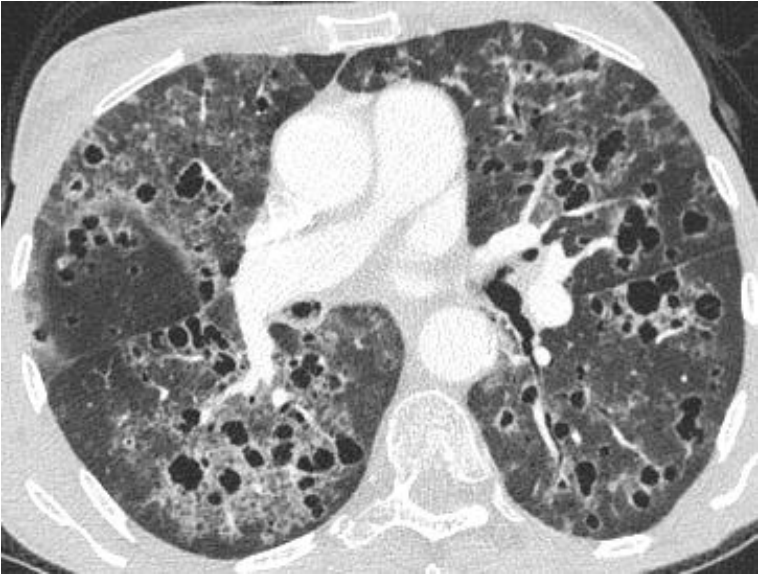


Figure 1d



Figure Legend

Figure 1a. Presentation chest radiograph

Figure 1b. Follow-up chest radiograph at 6 weeks

Figure 1c. Thoracic CT scan (axial view)

Figure 1d. Thoracic CT scan (coronal view)