

# Novel mechanism for lung cyst formation

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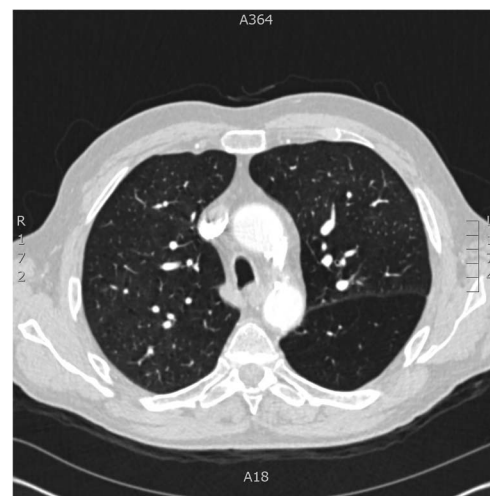
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## DESCRIPTION

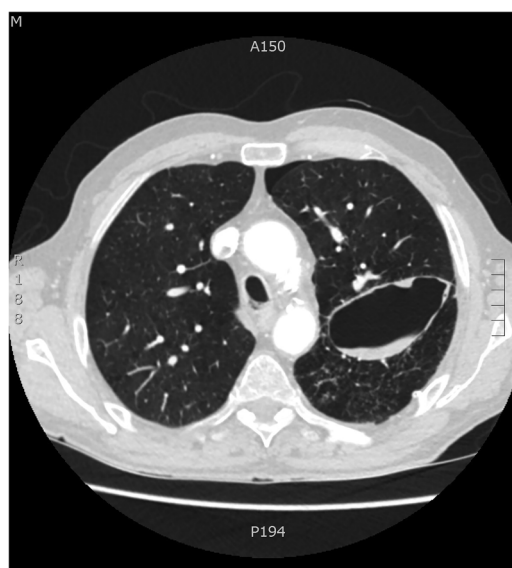
A 75-year-old man with a history of severe chronic obstructive pulmonary disease presented with severe cough and breathlessness, after choking on his dinner. He had a Medical Research Council grade 4 and had stopped smoking over 40 years prior. While in hospital, he coughed up a pea and was discharged home. The following day he re-presented after developing worsening dyspnoea and haemoptysis following another bout of coughing. Chest X-ray demonstrated a left apical pneumothorax, for which a chest drain was inserted. Bronchoscopy revealed inflamed haemorrhagic mucosa, with no foreign body visualised. CT of the chest demonstrated a substantial fluid-filled oval cyst with surrounding pneumothorax (figure 1). Interestingly, this was not present on the thoracic CT he had had 18 months previously, in 2014 (figure 2), and appears to have developed in an



**Figure 2** CT of the thorax in January 2014, with no evidence of lung cyst.

area of panlobular emphysema. This led us to believe that coughing-induced barotrauma had caused rupture of the interlobular septa, leading to haemoptysis and acute cyst formation with haemorrhage and pneumothorax.

A literature review was unable to produce other published cases of coughing-induced lung cyst formation.



**Figure 1** Fluid-filled lung cyst formation with surrounding pneumothorax (August 2015).

## Learning points

- ▶ Coughing can lead to lung cyst formation.
- ▶ Aspiration and choking can cause pneumothoraces.

**Competing interests** None declared.

**Patient consent** Obtained.

**Provenance and peer review** Not commissioned; externally peer reviewed.



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