

Pneumatocele after recovering from COVID-19

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DESCRIPTION

A 50-year-old Japanese man presented at our hospital with a week-long history of fever and dry cough. He had never smoked and had no notable medical history. Chest CT revealed bilateral ground-glass opacities (figure 1A). The diagnosis of COVID-19 was confirmed by reverse transcription-PCR for SARS-CoV-2. We administered subcutaneous heparin and oral dexamethasone for 5 days; he was discharged on day eight of admission. Follow-up CT showed bilateral consolidations (figure 1B) 4 days after discharge. One week later, he experienced sudden chest discomfort and haemoptysis. Chest CT revealed a de novo pneumatocele in the right lower lobe (figure 1C), which was carefully managed conservatively as a complication of COVID-19.

Lung cystic changes occur in up to 10% of COVID-19 cases.¹ Pneumatocele is a thin-walled cystic lesion associated with acute pneumonia, and it often resolves spontaneously.² Ruptured pneumatocele can lead to pneumothorax³; thus, careful follow-ups should be required. Although the incidence and mechanism of pneumatocele formation are still unclear in COVID-19, diffuse alveolar damage due to SARS-CoV-2 infection followed by the necrosis of the airway walls can cause pneumatocele.²

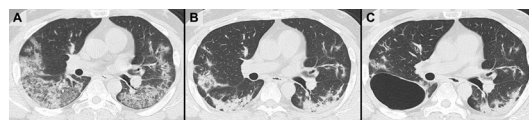


Figure 1 Chest CT. (A) Bilateral ground-glass opacities consistent with COVID-19. (B) Bilateral consolidations after recovering from COVID-19. (C) A de novo pneumatocele in the right lower lobe.

Learning points

- ▶ Although the incidence and mechanism of pneumatocele formation are still unclear in COVID-19, diffuse alveolar damage due to SARS-CoV-2 infection followed by the necrosis of the airway walls can cause pneumatocele.
- ▶ We clinicians should be attentive to the occurrence of pneumatocele as a complication of COVID-19, and careful follow-ups are required because ruptured pneumatocele can lead to pneumothorax.

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