



## Computed tomography of the lungs in novel corona virus (COVID-19) infection

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Dear Editors,

Novel corona virus 2019 (COVID-19) disease emerged at the end of 2019 in Wuhan City in the Hubei Province of China [1]. There are, to date, few reports of imaging in infected children. We report on two children diagnosed with COVID-19.

The first case is a 12-year-old boy who was admitted to the hospital with 2 days of cough. The boy's main symptoms were dry cough, fever and general weakness. The second case is a 16-year-old boy who was admitted to the hospital after 1 day of fever and cough without obvious inducement. Both live in Wuhan City, where they were at the onset of symptoms.

COVID-19 nucleic acid tests were positive before the CT scan in both boys. In Case 1, no obvious abnormality was found in the lungs on the first scan of the chest 4 days after symptom onset. Repeat examination after 4 more days showed multiple patches of subpleural ground-glass. Re-examination after yet another 4 days showed partial resolution in the right lung, but a new nodule was detected (Fig. 1). The boy's condition improved after 17 days of antiviral and symptomatic treatment, and he was discharged.



**Fig. 1** Unenhanced axial chest CT image in a 12-year-old boy with COVID-19 infection 8 days after onset shows a ground-glass lesion (arrow) medially in the right lower lobe

In Case 2, patchy ground-glass opacification and vascular dilatation was seen in the left upper lobe on the CT examination on Day 2 after admission. Re-examination after an interval of 13 days showed resolution of the ground-glass changes, but multiple nodular lesions with a ground-glass halo were seen in the right upper lobe (Fig. 2). The boy's condition

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**Fig. 2** Unenhanced axial chest CT image in a 16-year-old boy with COVID-19 infection 15 days after onset shows several small subpleural nodules (arrowheads) with ground-glass halo in the right upper lobe

improved after 29 days of antiviral and symptomatic treatment, and he was discharged.

In our experience, there are differences in CT findings between children and adults infected with COVID-19. Children seem to have smaller, mainly ground-glass nodules, and larger consolidations or white-out is rare. The clinical symptoms seem relatively mild in children [2–5].

### Compliance with ethical standards

**Conflicts of interest** None

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