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LETTER TO THE EDITOR

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

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

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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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