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Imaging

Man with severe COVID pneumonia

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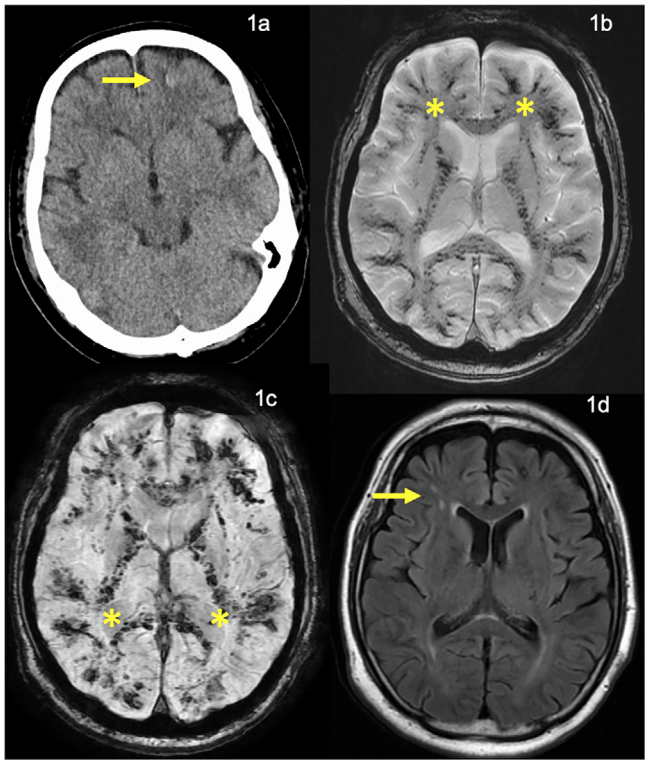

FIGURE 1 A, Brain computed tomography showing subcortical hemorrhage (yellow arrow). B, T2*-weighted image and (C) Susceptibility-weighted image showing diffuse, symmetrical microbleeds in subcortical white matter (U-fibers) (*). D, Minor lacuna in frontal white matter on T2-FLAIR image (yellow allow)

In coronavirus disease 2019 (COVID-19) patients treated with veno-venous extracorporeal membrane oxygenation (VV-ECMO) generally need anticoagulant therapy.

A 56-year-old man with a history of diabetes was admitted to ICU for severe COVID-19 pneumonia. He was intubated on day 3 and VV-ECMO was established on day 5 because of severe hypoxia. We administered unfractionated heparin with carefully monitored activated partial thromboplastin time ranging from 40 to 60 seconds; however, he had rectal bleeding requiring endoscopic clipping and artificial lung thrombosis during VV-ECMO management. His minimum platelet count and maximum D-dimer in this period were 3.6 × 109/mL and 18.4 μg/mL, respectively. He was weaned from VV-ECMO after 7 days but remained comatose. On day 15 brain computed tomography (CT) showed multiple subcortical hemorrhage (Figure 1A). He awoke slowly and was able to communicate, walk, and be discharged from ICU. Follow-up cerebral MRI on day 57 revealed diffuse microbleeds in subcortical and deep white matter on T2*-weighted images (Figure 1B) and susceptibility-weighted imaging (SWI) (Figure 1C). He also had minor lacuna in frontal deep matter on T2-FLAIR (Figure 1D) and minor cognitive impairment. Cerebral MRI is more useful than CT for detecting microbleeds.

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[Correction added on 18 June 2020, after first online publication: "Lukes" was updated to "Luke's" in the affiliation]