



Fundación
Santa Fe de Bogotá

Massive air embolism in COVID-19 patient

Jorge Carrizosa¹, Lorena Moreno²

¹Critical Care Department – Fundacion Santa Fe de Bogotá; ²Critical Care Resident – Universidad del Rosario



PURPOSE

A fatal case of massive air embolism in a COVID-19 patient with an unusual CT scan pattern described. As clinical necropsy is notably limited worldwide in COVID-19 patients, clinical and imaging strategies are needed to achieve a prompt and accurate evaluation of atypical case presentation.

METHODS

This case report aimed to describe a COVID-19 patient's clinical course with the fatal outcome due to a massive air embolism of unknown cause. Call for the need of clinical necropsies in COVID-19 patients.

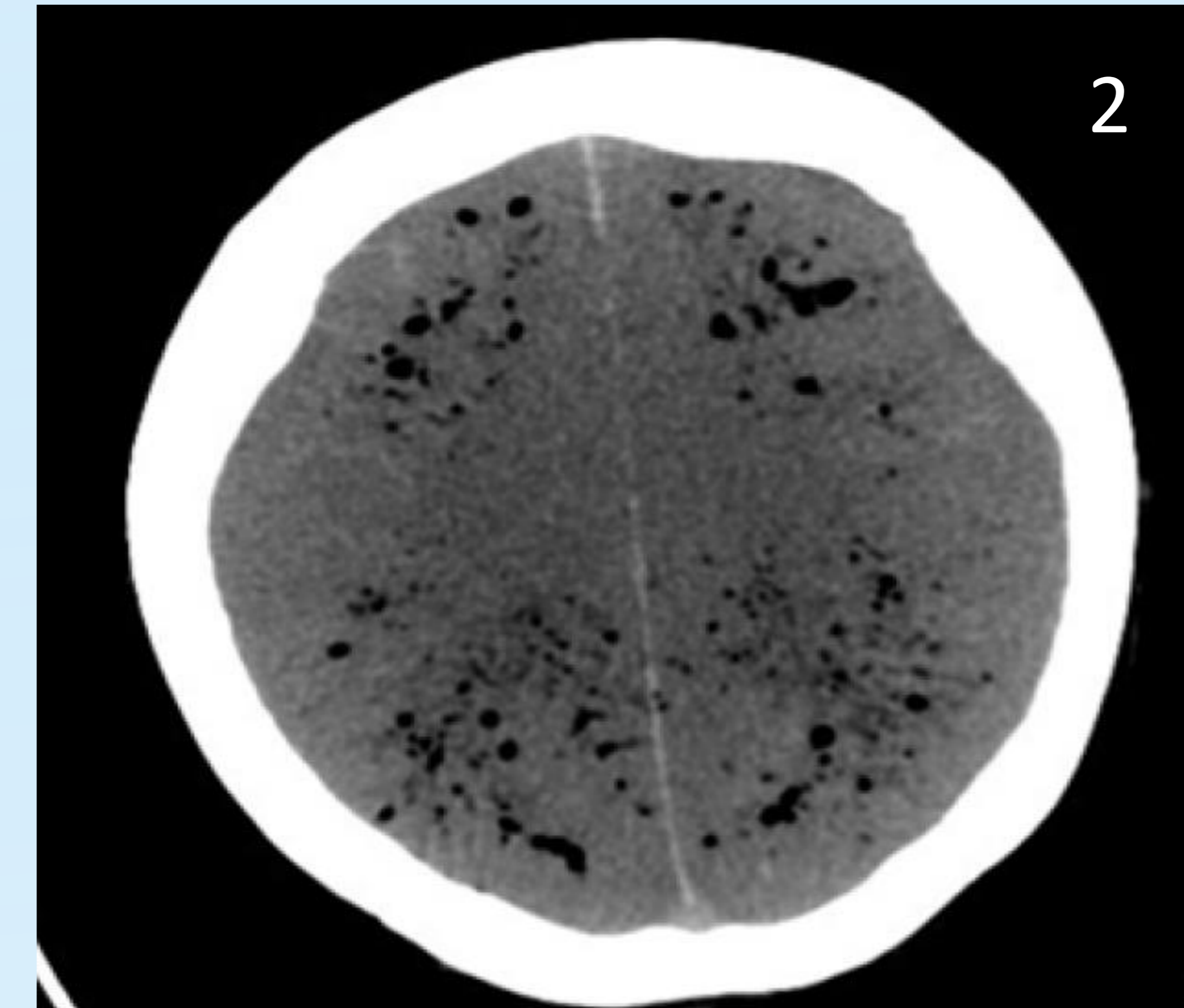
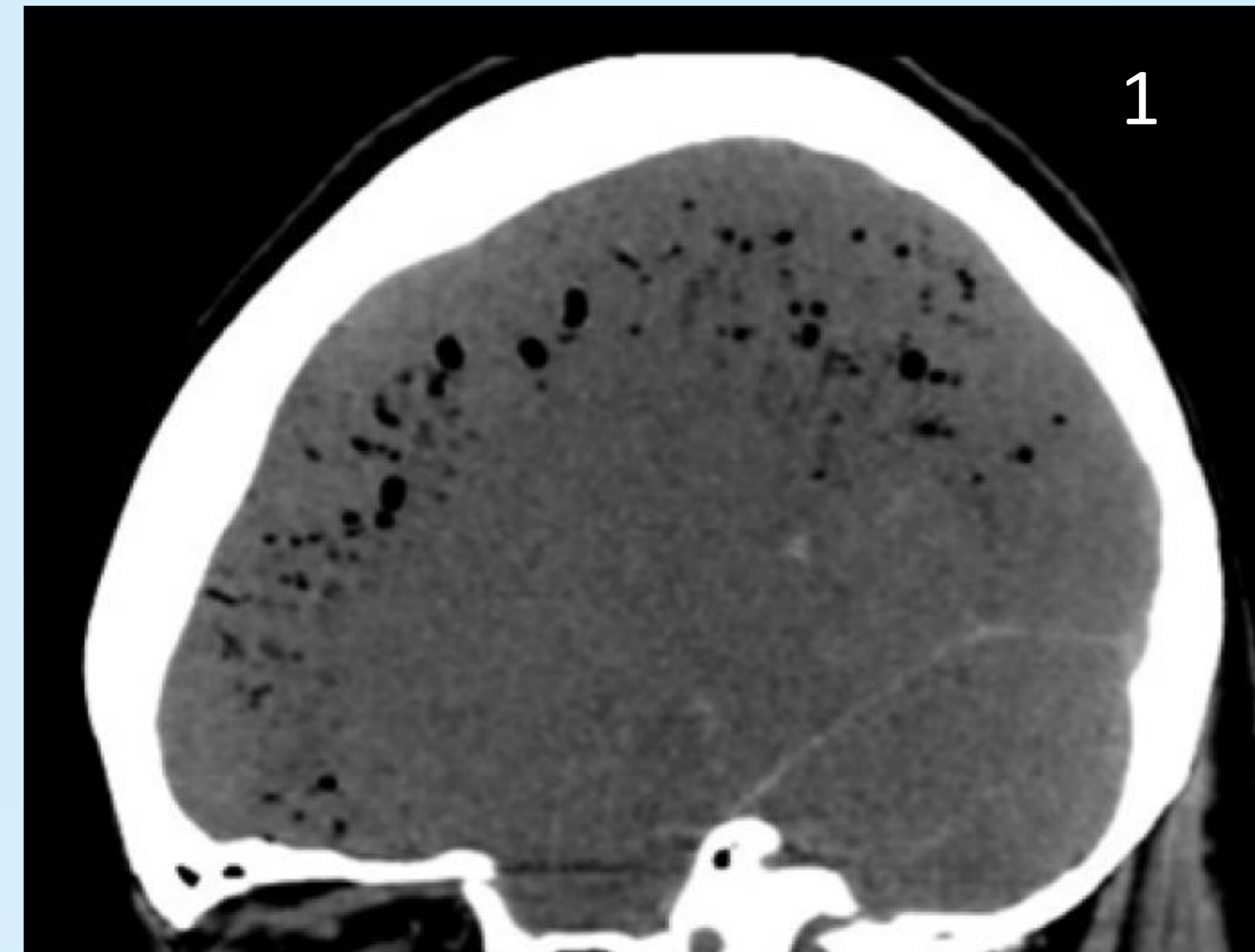
CASE PRESENTATION

Sixty-year-old woman with a past medical history of a liver transplant due to primary biliary cholangitis and systemic sclerosis.

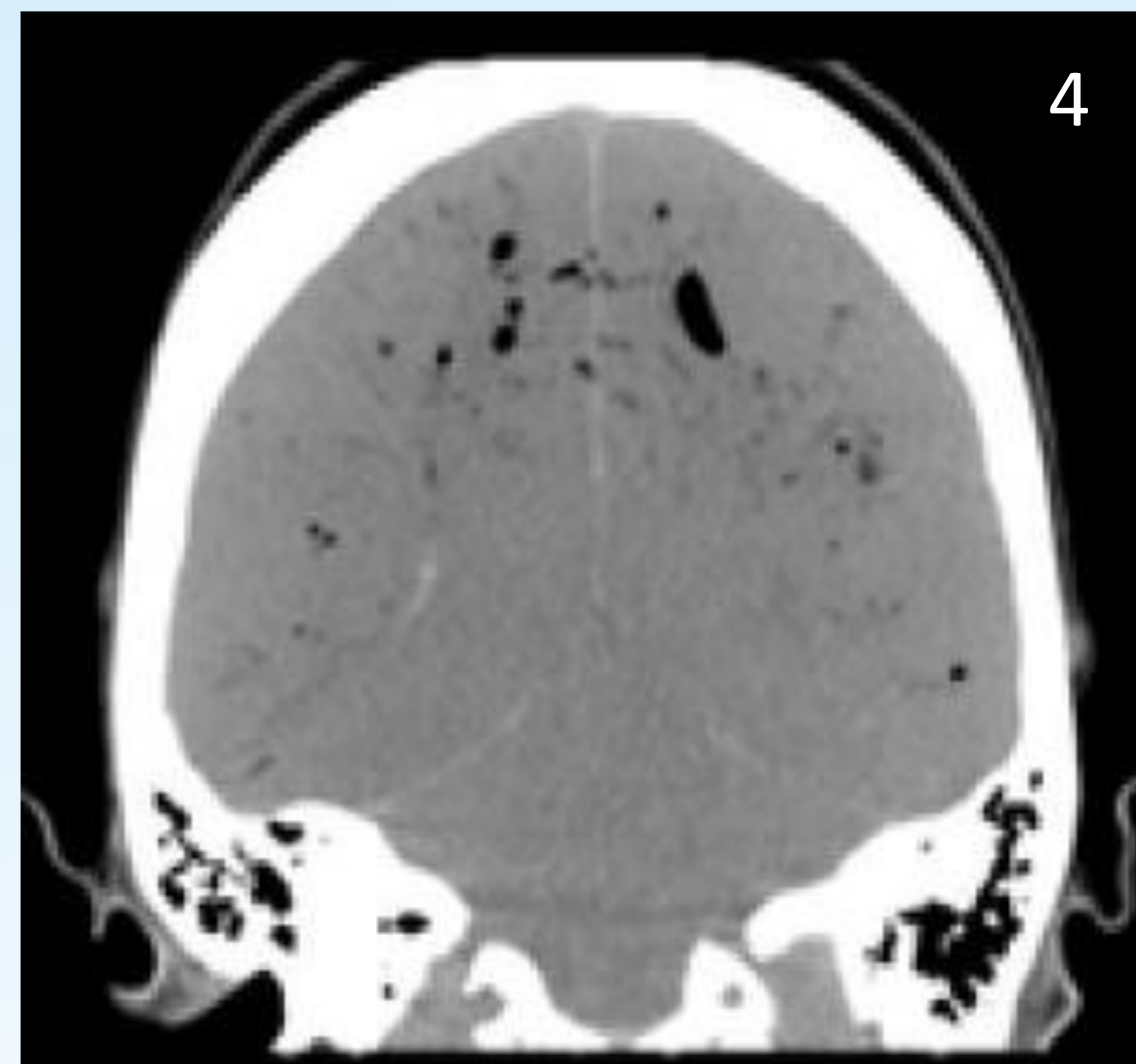
She admitted to COVID-19 ICU due to severe ARDS.

Mechanical ventilation plus plasmapheresis management as a context of suspicious of autoimmune flare.

IMAGING



Figures 1 & 2. Non-contrast CT scan right after neurological changes were noticed.



Figures 3 & 4. Contrast CT scan 24 hours later showing pseudo subarachnoid hemorrhage, diffuse brain edema and absence of cerebral blood flow.

Loss of consciousness noticed, sedation stopped, and bilateral non-reactive mydriatic pupils were persistent.

High IP on TCD observed.

Complimentary evaluation discards patent foramen ovale, pneumothorax, barotrauma, right to left shunt, or high-intensity transient signals on TCD.

Brain death was declared.

CONCLUSIONS AND CLINICAL IMPLICATIONS

COVID-19 has become a significant public health issue worldwide.

Complete understanding of this pathology remains in significant knowledge gaps.

Clinical necropsies are necessary to get a better comprehension of "atypical" presentations of the disease.

Correspondence:
magnusdronjak@hotmail.com