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IMAGING IN INTENSIVE CARE MEDICINE

Fatal cerebral venous sinus thrombosis after COVID-19 vaccination

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A 69-year-old woman with arterial hypertension treated daily by hydrochlorothiazide and angiotensin receptor antagonist received a first dose of Oxford–AstraZeneca vaccine.

Eleven days after the vaccination, the patient developed headache associated with behavioral symptoms. At day 13, her daughter found her unconscious. Physical examination revealed a coma Glasgow 4/15, right mydriasis,

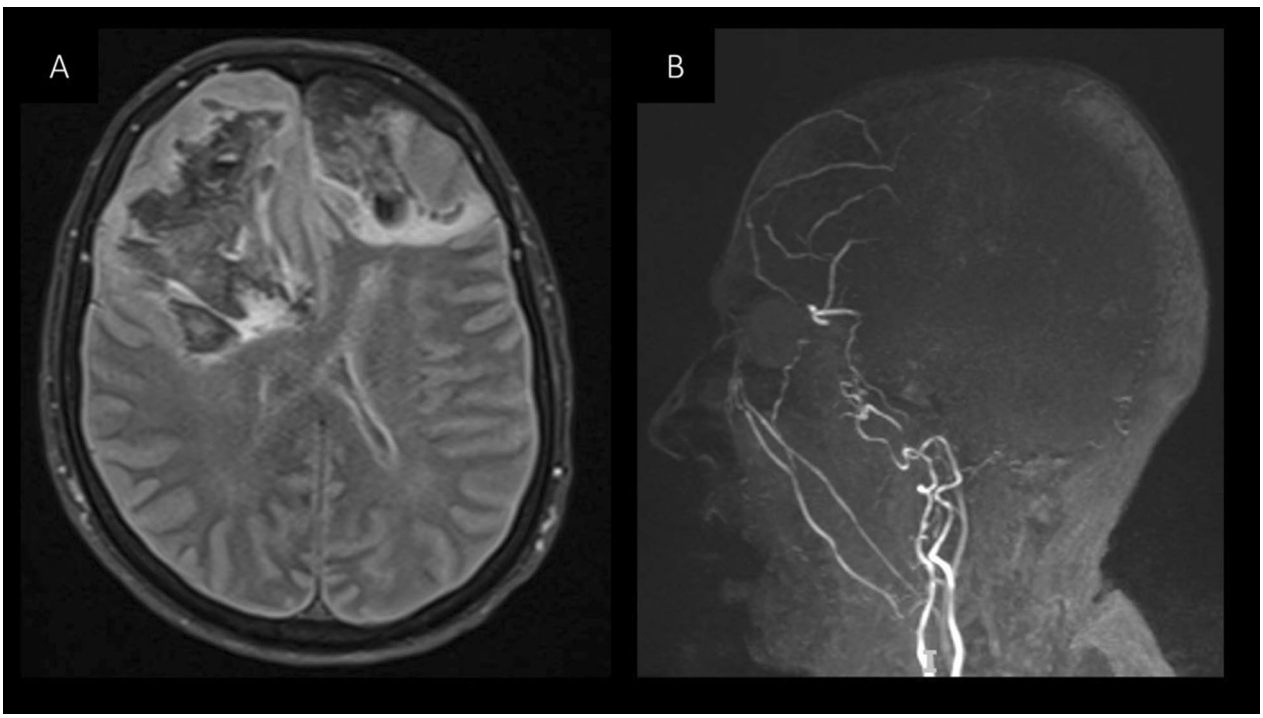

Fig. 1 Cerebral venous thrombosis with bilateral frontal intraparenchymatous hemorrhage. **A** T2 FLAIR sequencing revealed bilateral left (80 × 53 mm) and right (56 × 23 mm) intra parenchymatous frontal hemorraghe. **B** Venous phase contrast MRI study showed an absence of venous blood flow in sigmoids and superior sagittal sinus

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bilateral Babinski reflex without hemodynamic instability or respiratory failure. She was intubated and transferred in our intensive care unit.

Immediate CT scan followed by MRI highlighted a severe bilateral frontal hemorrhage with brain herniation complicating a cerebral venous thrombosis of the left internal jugular vein, sigmoid sinus and superior sagittal sinus (Fig. 1). Moreover, thoracic CT scan showed concomitant segmentary pulmonary embolism. Blood analysis at admission revealed an isolated thrombopenia measured at 18G/L with positive anti-PF4 antibodies.

Evolution was dramatically poor in the next few hours with brain death, leading to an organ donation procedure.

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MJ, EM, JH and GF wrote the manuscript.

Declarations

Conflicts of interest
The authors have no conflict of interest to declare.

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