

Case	(089) Percheron and fogging
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CASE PRESENTATION

A 70 year-old woman treated with aspirin due to a prior cerebellar stroke was admitted to the emergency department with sudden unconsciousness. Admission cranial CT scan was normal. Neurological examination revealed sleepiness and upward and downward vertical conjugate gaze palsy.

Eight hours later, a second cranial CT was performed due to the absence of neurological improvement, showing hypodense lesions in both thalamic nuclei compatible with thalamic infarcts.

Forty-eight hours after hospital admission, the patient had sudden-onset dyspnea, pleuritic pain and oxygen desaturation. Chest CT revealed bilateral pulmonary thromboembolism and direct oral anticoagulant was started. Transesophageal echocardiography showed an atrial septal aneurysm with patent foramen ovale.

On day 16, a cranial CT scan showed the disappearance of bilateral infarct lesions that was attributed to fogging phenomenon. On day 39, follow-up CT scan and MRI demonstrated chronic artery of Percheron infarction.

DISCUSSION

The artery of Percheron is a variant of the paramedian thalamic vasculature in which a single paramedian branch supplies blood to the medial aspect of both thalami. The occlusion of this artery produces ischemia in both thalamic nuclei with variable involvement of the ventral midbrain.

Decrease of consciousness level, oculomotor abnormalities and cognitive impairment are the main symptoms of this entity. Imaging tests usually available in the acute setting have limitations to establish a diagnosis. This fact delays the treatment and has an impact on the prognosis.

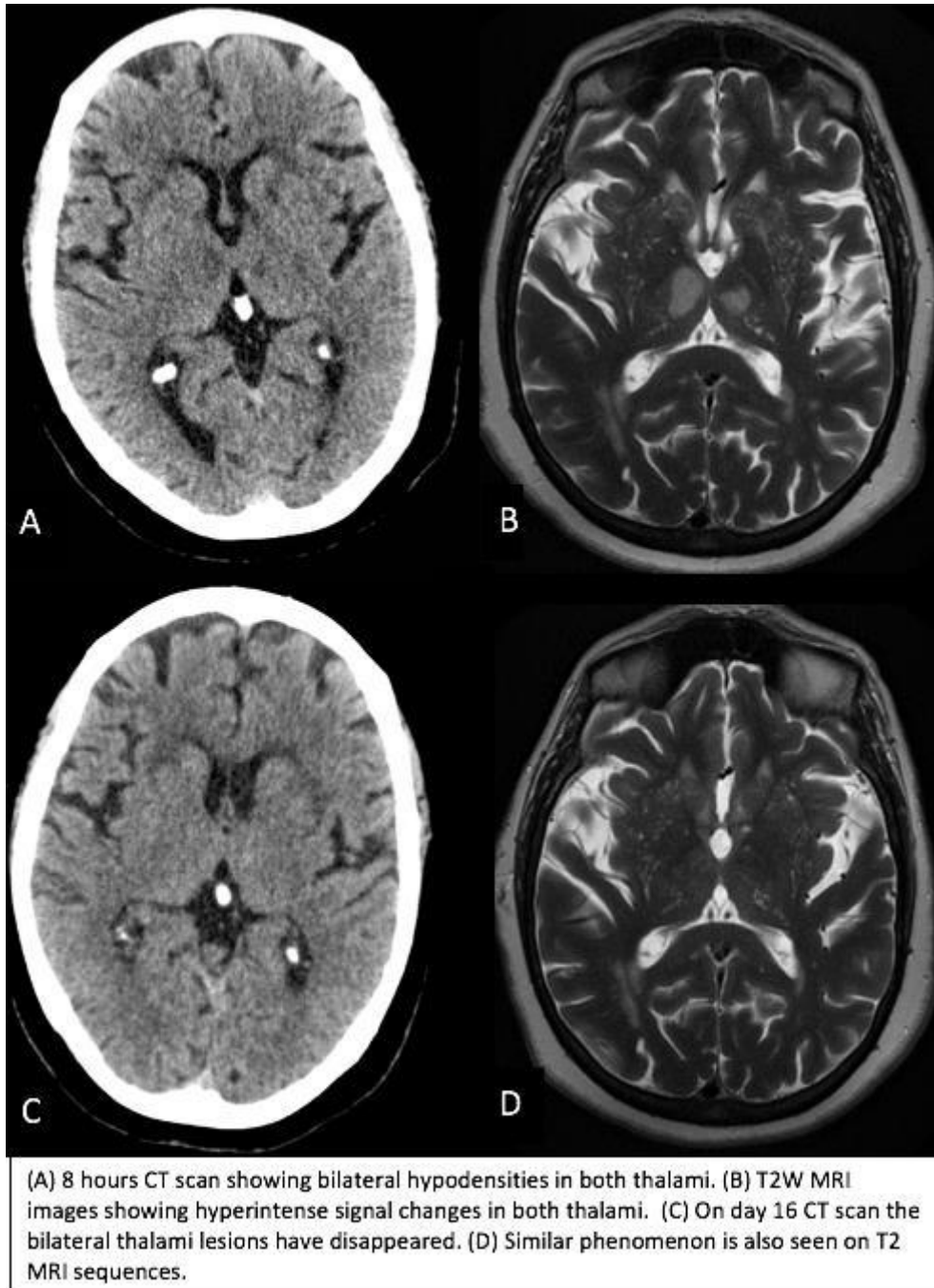
Moreover, in the evolution of the infarction the fogging phenomenon can be seen in up to 50% of patients between 6 and 36 days after the onset of infarction. It represents a transient phase of the evolution of cerebral infarction where the region of cortical infarction regains a near-normal appearance on imaging and it may add confusion to the imaging interpretation. In our case, this phenomenon was seen on both CT and MR follow-up exams.

CONCLUSION

Artery of Percheron acute stroke is a rare entity due to the occlusion of a variant of the paramedian thalamic vasculature. In the presence of sudden somnolence and vertical

gaze palsy, artery of Percheron acute stroke should be suspected and bilateral thalamus infarcts should be pursued to avoid delays treatment and worsening in the prognosis.

Normalization of imaging test on the subacute phase should suggest fogging phenomenon. 1



BIBLIOGRAPHY

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