

# Corticosteroid treatment for traumatic acute subdural haematoma, maybe not such a good idea

Diane Demailly,<sup>1</sup> Pierre Henri Lefevre,<sup>4</sup> Dimitri Renard<sup>1</sup>

<sup>1</sup>Neurology, Nîmes University Hospital, Nîmes, France

<sup>4</sup>Radiology, Nîmes University Hospital, Nîmes, France

**Correspondence to**  
Dr Dimitri Renard,  
dimitrirenard@hotmail.com

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## DESCRIPTION

An 86-year-old woman with acute blunt head trauma (the patient's head was hit by a car) 10 days ago, associated with a right occipital fracture and an acute subdural haematoma (treated in the department of neurosurgery by oral prednisone 80 mg once a day) (figure 1), presented with focal left arm motor seizures. At that time, CT and MRI showed right cortical venous thrombosis (figure 1), absent on initial CT imaging. Corticosteroids were stopped and antiepileptic drugs and anticoagulation (warfarin) started. Three weeks later, CT showed complete resolution of the cortical venous thrombosis and spontaneous resorption of the subdural haematoma. Blood analyses in search of a prothrombotic state were negative in the absence of other blood test abnormalities (including normal metabolic profile).

Despite the lack of evidence-based efficacy, steroids are sometimes used in the non-surgical treatment of chronic (and sometimes also acute) subdural haematoma.<sup>1</sup> Venous sinus thrombosis is relatively frequent after blunt head trauma (described in up to 16% of patients with acute blunt trauma), especially in the presence of skull fracture (associated with a risk of 20% for venous sinus thrombosis).<sup>2</sup> The recommended treatment by anticoagulation of these post-traumatic venous sinus thrombosis patients is unclear because of frequently associated traumatic intracranial haemorrhage. The exact underlying pathophysiological mechanism of these trauma-related venous sinus thromboses is unknown. In our patient, other risk factors for venous sinus thrombosis might have also played a role, for example, intracranial hypotension due to a traumatic dural tear (although radiological abnormalities often seen in

## Learning points

- ▶ Clinically, suspecting venous sinus thrombosis after head trauma is often not evident since both disorders are classically associated with headache.
- ▶ Venous sinus thrombosis is relatively frequent after blunt head trauma.
- ▶ Corticosteroid treatment is controversial as treatment for subdural haematoma. Because of the frequently associated venous sinus thrombosis, corticosteroids have to be used with caution (or even simply avoided) in acute traumatic subdural haematoma.

intracranial hypotension lacked) or pre-existing dehydration (often present in elderly patients, although dehydration-related blood abnormalities lacked in our patient).

In conclusion, corticosteroid treatment (with its possible associated prothrombotic effect) has to be used with caution in traumatic acute subdural haematoma.

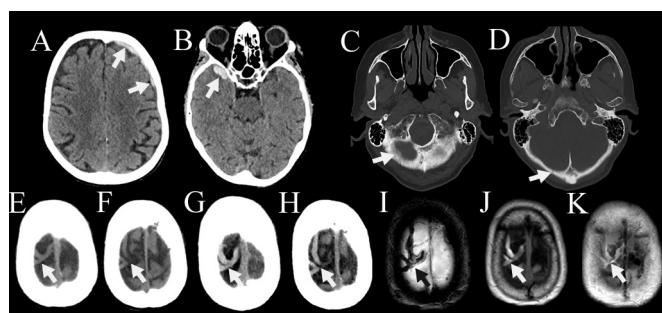
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**Figure 1** Initial CT showing frontal (A) and temporal (B) acute subdural haematoma and right occipital fracture (C and D), without venous signal abnormalities (E and F). Ten days later, non-enhanced CT showed cortical venous hyperdensity (G and H) and MRI confirmed cortical venous thrombosis (I, T2\*; J, non-enhanced T1; K, fluid attenuation inversion recovery).



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