Acute dural venous thrombosis

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Accepted 3 September 2015

DESCRIPTION

An 18-year-old female student presented with a 7-day history of worsening frontal headache and 1 day history of vomiting. The patient described marked photophobia, but no fever or history of seizure. She was taking a combined oral contraceptive and had no other medical history. Physical examination showed no focal neurology, but funduscopy revealed bilateral papilloedema. On admission, a non-contrast CT of the head showed a hyperdense

Figure 1 Non-contrast CT scan demonstrating the triangle sign.

Figure 2 Contrast CT scan demonstrating the δ sign.

Figure 3 MR venogram demonstrating a filling defect of the superior sagittal vein.

thrombus, triangle sign (figure 1) and prominence of the superior sagittal, straight, right transverse and sigmoid sinuses—highly suggestive of acute cerebral dural sinus thrombosis. Contrast CT demonstrated a δ sign, contrast outlining a filling defect due to a thrombus (figure 2). MR venogram (MRV) (figure 3) confirmed diagnosis and demonstrated little cerebral oedema, and no bleed or haemorrhagic infarction. The patient was treated with heparin and discharged on warfarin. Review after 4 months showed healthy discs with no papilloedema; the warfarin was

Figure 4 Repeat MR venogram demonstrating recanalisation of the superior sagittal vein.

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To cite: Harvey JP, Mamun M. *BMJ Case Rep* Published online: [please include Day Month Year] doi:10.1136/bcr-2015-212437

Learning points

- ▶ Acute dural venous thrombosis represents around 0.5–1% of all strokes.
- ▶ Non-contrast CT scan may be normal but contrast CT scan classically shows a δ sign: a contrast filling defect in the superior sagittal vein.
- ▶ Always enquire about the use of an oral contraceptive in a young woman presenting with an acute onset headache.

stopped due to recurrent epistaxis and repeat MRI/MRV showed good re-canalisation (figure 4).

Dural venous thrombosis represents 0.5–1% of all strokes and has an incidence of around 5 per million people per year.¹ Presenting symptoms include: headache, papilloedema, cranial nerve palsies, unilateral motor weakness and speech disturbances.¹ Non-contrast CT scans are often normal but may demonstrate a triangle sign (figure 1). Contrast CT may show a δ sign, a contrast filling defect in the superior sagittal vein

(figure 2).² MRV remains the gold standard imaging technique of dural sinus thrombosis.² The mainstay of treatment is anticoagulation.¹ The ISCVT study demonstrated a 8.3% mortality and 79% of patients make a full recovery.³

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Contributors MM was jointly involved in the immediate and follow-up care of the patient as well as the review of this manuscript for submission.

Competing interests None declared.

Patient consent Obtained.

Provenance and peer review Not commissioned; externally peer reviewed.

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