Bleeding or clotting: an intracranial dilemma

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DESCRIPTION

We present a complex diagnosis of a 25-year-old woman with a background of ulcerative colitis (UC) at risk of both intracranial haemorrhage and thrombosis.

The patient presented to the emergency department having collapsed at work, obtaining a head injury while falling to the floor and suffering an 8 min seizure in the immediate aftermath. The patient had an acute flare of her UC 2 weeks previously, and her medical history included a deep vein thrombosis following a long-haul flight and a pulmonary embolism while taking contraceptive pill/oral contraceptives.

The patient denied a headache preceding her collapse, although she admitted her head had ‘felt fuzzy’ during the previous 2 days. CT of the head was performed (figure 1A,B), revealing patchy haemorrhagic changes in the right frontal lobe. Abnormal hyperdensity of the superior sagittal sinus and of a cortical vein was also noted; the patient underwent MRI of the head and CT venography, confirming intracranial thrombosis with substantial surrounding oedema (figures 2 and 3). The patient was consequently given a heparin infusion.

Although a head injury can cause intracranial haemorrhage, our patient had multiple risk factors for thrombosis (UC with recent flare, previous deep vein thrombosis and pulmonary embolism)1 2 which, combined with an unusual pattern of intracranial haemorrhage on CT,

Learning points

► Ulcerative colitis is an independent risk factor for venous thrombosis with a lifetime incidence of around 6%.
► Venous infarction secondary to cerebral venous thrombosis appears as intracranial haemorrhage on imaging in 30%–40% of cerebral venous thrombosis.
► Plain CT head images provide a diagnosis of cerebral venous thrombosis in approximately 30% of cases; in the event of a normal CT head, diagnostic suspicion must guide appropriate further imaging such as CT/magnetic resonance venography.
triggered consideration of the alternative diagnosis of intracranial thrombosis, in which associated haemorrhage is a feature in 30%–40% of cases.

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