Teaching *NeuroImages*: Ocular findings in a patient with Wilson disease and venous sinus thrombosis

Ivana Vodopivec, MD,
PhD
Emer McGrath, MD,
PhD
Henrikas Vaitkevicius,
MD

Correspondence to
Dr. Vodopivec:
ivodopivec@partners.org

Figure 1 Neuroimaging

Sagittal and coronal contrast-enhanced T1-weighted magnetization-prepared rapid gradient echo MRI reveals dural venous sinus thrombosis involving the superior sagittal sinus, straight sinus, and bilateral transverse sinuses (arrows; A). CT head demonstrates scattered subarachnoid hemorrhage along the bifrontal lobes and the left Sylvian fissure (arrow; B).

A 28-year-old woman with a history of hepatic Wilson disease taking an oral contraceptive presented after a generalized tonic-clonic seizure. Neuroimaging revealed dural venous sinus thrombosis (figure 1). Underlying infections, inherited hypercoagulable disorders, and liver function abnormalities were not found. CSF analysis showed only xanthochromia and elevated

erythrocyte count. Ophthalmic examination revealed abnormalities of her cornea, optic discs, and retina (figure 2). Roth spots have been traditionally described in patients with subacute bacterial endocarditis, but are also well-recognized in patients with elevated venous pressure.¹ Anticoagulation and temporary CSF diversion for management of intracranial hypertension

Figure 2 Ocular findings

Slit-lamp examination of the cornea reveals Kayser-Fleischer rings, i.e., brown copper deposits in Descemet membrane (A). Dilated funduscopic examination demonstrates papilledema and retinal hemorrhages, some of which represent Roth spots (arrows; B). They almost completely resolved 2 weeks later, with anticoagulation and treatment of intracranial hypertension (C).

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resulted in near-complete resolution of the papilledema and retinal hemorrhages 2 weeks later.

AUTHOR CONTRIBUTIONS

Dr. Vodopivec was responsible for the care of the patient, including diagnosis and treatment, conceived the manuscript, drafted the initial manuscript, revised the manuscript, and created the figures. Dr. McGrath was responsible for the care of the patient, including diagnosis and treatment, and revised the manuscript. Dr. Vaitkevicius was responsible for the care of the patient, including diagnosis and treatment, and revised the manuscript.

STUDY FUNDING

No targeted funding reported.

DISCLOSURE

The authors report no disclosures relevant to the manuscript. Go to Neurology.org for full disclosures.

REFERENCE

1. Ling R, James B. White-centred retinal haemorrhages (Roth spots). *Postgrad Med J* 1998;74:581–582.

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Neurology 2017;88:e55-e56

DOI 10.1212/WNL.0000000000003619

This information is current as of February 13, 2017

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