Teaching NeuroImages:

Intracranial arterial dissection

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Figure 1 CT and CT angiography (CTA) head

CT and CTA head at presentation. Axial CT head (A) shows right frontal hematoma extending into the ventricles, anterior interhemispheric subarachnoid hemorrhage, and bilateral anterior cerebral artery infarcts. Sagittal CTA (B) and 3D reconstruction (C) reveal an aneurysm of the right callosomarginal artery (arrows).

A 22-year-old previously fit man presented with acute seizures, left hemiparesis, and a Glasgow Coma Scale score of 7.

CT showed a large right frontal parenchymal hematoma with intraventricular extension and

anterior interhemispheric predominant subarachnoid haemorrhage. A dissecting aneurysm of the right mid-callosomarginal artery was demonstrated on CT angiography (figure 1) and intracranial digital subtraction angiography (figure 2). These illustrate

Figure 2 Cerebral angiogram (digital subtraction angiography)

Cerebral angiogram lateral view (A) and oblique view (B) confirm the diagnosis of an intracranial dissecting fusiform aneurysm at a nonbranching point of the right callosomarginal artery. Note the focal stenoses proximally and distally (pearl-and-string sign) (arrows).

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the characteristic pearl-and-string sign representing focal narrowing proximal and distal to the aneurysm.

Intracranial artery dissection is an underrecognized entity that may present with rupture or cerebral ischemia.¹ The pearl-and-string sign at a nonbranching point is a pathognomonic finding on angiography, as is an intramural hematoma.¹

AUTHOR CONTRIBUTIONS

J.H.: corresponding author, study design and concept, analysis and interpretation of data/images, drafting the manuscript. R.L.: analysis and interpretation of data/images, drafting and revising the manuscript. L.W.: acquisition, analysis, and interpretation of data. I.D.:

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