Bilateral occipital strokes from an atherosclerotic trigeminal artery

Figure 1 Diffusion-weighted MRI showing bilateral occipital infarcts

Diffusion abnormalities in the lingual and parahippocampal gyri.

A 58-year-old man with coronary disease presented with headache, confusion, and vision loss. On examination, he had retrograde and anterograde amnesia, superior homonymous quadrantanopias, and could not identify colors. MRI showed bilateral occipital infarcts involving the parahippocampal and lingual gyri (figure 1). CT angiography revealed a hypoplastic vertebrobasilar circulation, with a persistent right trigeminal artery supplying the rostral basilar artery (figure 2). Persistent fetal arteries may increase risk of atherogenesis due to increased turbulence.¹ A rare cortical syndrome, new-onset achromatopsia with amnesia should provoke concern for top of the basilar syndrome.² In this case, fetal artery intracranial atherosclerosis resulted in a “top of the trigeminal” syndrome.

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Figure 2 Persistent trigeminal artery with severe atherosclerosis

Coronal sections through the rostral basilar artery demonstrate supply by a persistent right trigeminal artery (A, B, arrows). There is severe intracranial atherosclerosis, with dilated and tortuous carotid arteries. Axial section (C) shows severe stenosis at the origin of the trigemino-basilar system (arrow).

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