Meningovascular Syphilis

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Keywords

meningovascular syphilis, stroke, infectious vasculitis

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A 54-year-old right-handed man with no traditional vascular risk factors presented with right-sided weakness and fluctuating expressive aphasia. Magnetic resonance imaging of the brain showed an acute infarct of the left basal ganglia and corona radiata in the left middle cerebral artery (MCA) territory (Figure 1A). Computed tomography angiography of the head showed critical stenosis to near occlusion in the left supraclinoid internal carotid artery and the lower-mid basilar artery (Figure 1B and C) later confirmed by diagnostic 4-vessel cerebral angiogram. Stroke workup revealed positive serum syphilis immunoglobulin G and reactive rapid plasma reagin titer of 1:64. Cerebrospinal fluid (CSF) analysis revealed lymphocytic pleocytosis and elevated protein.

Venereal Disease Research Laboratory (VDRL) test was positive at titer of 1:4. Other vasculitis and infectious workup including human immunodeficiency virus were negative. The patient was treated with a course of intravenous penicillin for 2 weeks. Repeat CSF VDRL 6 months after treatment was nonreactive.

Syphilis has been called “The Great Imitator” because many of its symptoms can masquerade as other diseases. Stages of syphilis are primary, secondary, latent, and tertiary. The central nervous system (CNS) may be involved in any stage.^{1,2} Several different clinical syndromes can be seen in CNS involvement, including a chronic infectious vasculitis known as Huebner arteritis affecting the medium- and

Figure 1. A, Axial diffusion-weighted magnetic resonance imaging (MRI) demonstrates acute infarction in the left middle cerebral artery (MCA) territory. B, Coronal computed tomography angiography (CTA) maximal intensity projection (MIP) of the head shows critical stenosis of the left MCA (arrow). C, Sagittal CTA MIP of the head shows near occlusion of the basilar artery (arrows).

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large-sized arteries that leads to inflammation and fibrosis in the adventitia. Progressive stenosis results in thrombosis and infarction. The MCA is the most commonly involved artery, followed by the basilar artery.¹

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