

Teaching NeuroImage: Multifocal Single Vessel Cerebrovascular Fibromuscular Dysplasia

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Figure Symptomatic Multifocal Single Vessel Cerebrovascular Fibromuscular Dysplasia



(A) MRI of the brain T2 FLAIR sequence showed chronic infarcts in the right frontoparietal region; (B) sagittal view of CTA head and neck demonstrated moderate-to-severe stenosis of the entire right internal carotid artery cervical segment soon after its origin (white arrow). (C, D, E) Anteroposterior and lateral views on digital subtraction angiogram of right internal carotid artery showed alternate stenosis and dilatation of extracranial segment (black arrow) and cavernous-supraclinoid segments (white arrow), suggestive of "beading" typical of FMD.

A 39-year-old diabetic male patient with a history of right-eye amaurosis fugax presented with recurrent episodes of left-sided weakness. MRI of the brain revealed chronic infarcts in the right frontoparietal lobe. Conventional cerebral angiogram showed moderate-to-severe stenosis of the entire right internal carotid artery with diffuse beaded appearance highly suggestive of fibromuscular dysplasia (FMD) (Figure). MR angiography of the chest, abdomen, and pelvis was normal. He was initiated on aspirin 100 mg once daily with strict control of diabetes mellitus and dyslipidemia. FMD is a rare idiopathic nonatherosclerotic, noninflammatory vasculopathy affecting the musculature of small and medium-sized arteries primarily leading to stenosis and occasionally arterial dissection, aneurysms, and tortuosity.^{1,2} Atypical features in our patient included male sex and isolated multifocal cerebrovascular FMD with predominant intracranial involvement (Figure).

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Appendix (continued)

Name	Location	Contribution
Syed Irteza Hussain, MD	Department of Neurology and Neurointerventional Surgery, Neurological Institute, Cleveland Clinic, Abu Dhabi	Drafting/revision of the manuscript for content, including medical writing for content; major role in the acquisition of data
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