Teaching *NeuroImages*: Acute infarction of the left medial lemniscus masquerading as a peripheral neuropathy

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Figure MRI brain without contrast

(A) Axial diffusion-weighted image at the level of the pons shows a hyperintense lesion in the left medial lemniscus (arrow). (B) Axial apparent diffusion coefficient shows a corresponding hypointensity in the left medial lemniscus confirming an acute infarction (arrow).

A 58-year-old woman with hypertension and bilateral carpal tunnel syndrome presented with acute paresthesias in her right hand and foot. She had decreased sensation to vibration and pinprick in a right-sided stocking-glove distribution. MRI of the pons confirmed an acute infarction of a paramedian branch of the basilar artery in the left medial lemniscus (figure). In the posterior column pathway, sensory projections from the face, arm, and leg are somatotopically arranged medially to laterally within the medial lemniscus.^{1,2} Although strokes classically present with numbness, both thalamic and medial lemniscal infarcts can explain acute hemidysesthesias.

AUTHOR CONTRIBUTIONS

Dr. Aamodt: study concept and design, drafting and revising manuscript, analysis or interpretation of data. Dr. Siegler: study concept and design,

drafting and revising manuscript. Dr. Elman: study concept and design, study supervision or coordination.

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