

Response to “High-Resolution Vessel Wall MRI: Appearance of Intravascular Lymphoma Mimics Central Nervous System Vasculitis”

Adam de Havenon¹  · Scott McNally²

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To the Editor,

in the article “High-Resolution Vessel Wall MRI: Appearance of Intravascular Lymphoma Mimics Central Nervous System Vasculitis,” [1] Schaafsma et al. describe two interesting cases of biopsy-proven intravascular lymphoma (IVL) that mimicked the vessel wall MRI (vwMRI) appearance of vasculitis, with concentric arterial wall thickening and enhancement. To our knowledge these are the first reported cases of IVL that have had vwMRI. We have scanned over 200 patients with vwMRI at our institution, including a 47-year-old female with biopsy-proven large B-cell IVL. Her vwMRI showed multiple areas of evolving ischemic infarction, parenchymal hemorrhage, edema, and leptomeningeal enhancement; however, on vwMRI there was no vessel wall thickening or enhancement, including the right parietal lobe, where she had infarction with edema and the location of her brain biopsy. That biopsy was characteristic of IVL with multiple cortical vessels (M4 branches) pathologically distended with neoplastic lymphocytes positive for CD20 by immunohistochemistry. Biopsies of the central nervous system in IVL patients have revealed neoplastic lymphocytes within large and medium arteries, distal cortical vessels, leptomeningeal perforators, capillaries, and even veins [2–6]. Given this vascular heterogeneity, the vwMRI findings of IVL are undoubtedly

also highly variable. The resolution of current vwMRI protocols, 0.5–0.7 mm voxels, does not allow reliable assessment of the distal intracranial vessels, which introduces the possibility of a false negative study, as in the case of our patient. Furthermore, as the authors note, in vasculitis the intramural lymphocytic invasion provides a pathophysiologic mechanism for concentric vessel wall enhancement, whereas in IVL the vessel wall itself is spared. Given these challenges, we would suggest that, for diagnostic purposes, their findings be interpreted with caution.

Conflict of interest A. de Havenon and S. McNally declare that they have no conflicts of interest.

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✉ Adam de Havenon
adam.dehavenon@hsc.utah.edu

¹ Department of Neurology, University of Utah, 175 North Medical Drive, Salt Lake City, UT 84132, USA

² Department of Radiology, University of Utah, Salt Lake City, UT 84132, USA