

Supplemental content for Paramagnetic Rim Lesions in Multiple Sclerosis: Comparison of Visualization at 1.5-T and 3-T MRI

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doi.org/10.2214/AJR.21.26777

Published online: December 1, 2021

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Figure S1-Lesion containing heterogeneous paramagnetic content. Axial filtered-phase SWAN (A) and FLAIR (B) images at 3 T in 49-year-old man with relapsing multiple sclerosis show a lesion with discordant classification between readers in terms of being either isointense or diffusely paramagnetic. The heterogeneous paramagnetic signal within this confluent lesion in part relates to paramagnetic signal within the optic radiations. SWAN = susceptibility-weighted angiography

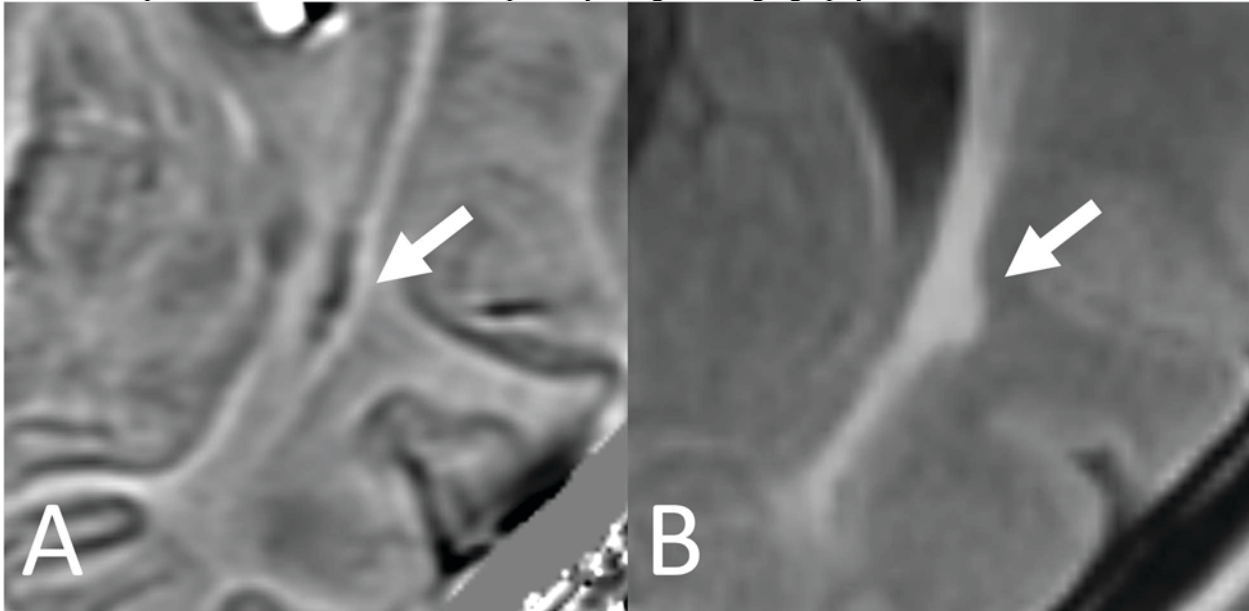


Figure S2-Lesions with discordant classification as paramagnetic rim lesion (PRL) between field strengths. Axial filtered-phase SWAN and FLAIR images depict lesions with discordant classification between raters in terms of PRL in two patients with multiple sclerosis. Patient 1 is 37-year-old woman [1.5 T: filtered-phase SWAN (A), FLAIR (B); 3 T: filtered-phase SWAN (C), FLAIR (D)]. Patient 2 is 56-year-old man [1.5 T: filtered-phase SWAN (E), FLAIR (F); 3 T: filtered-phase SWAN (G), FLAIR (H)]. In both patients, the FLAIR lesion was classified as PRL at 1.5 T but not at 3 T, likely representing false positive assessment at 1.5 T, in turn attributable to the relatively more circular configuration of vessels at 1.5 T. SWAN = susceptibility-weighted angiography

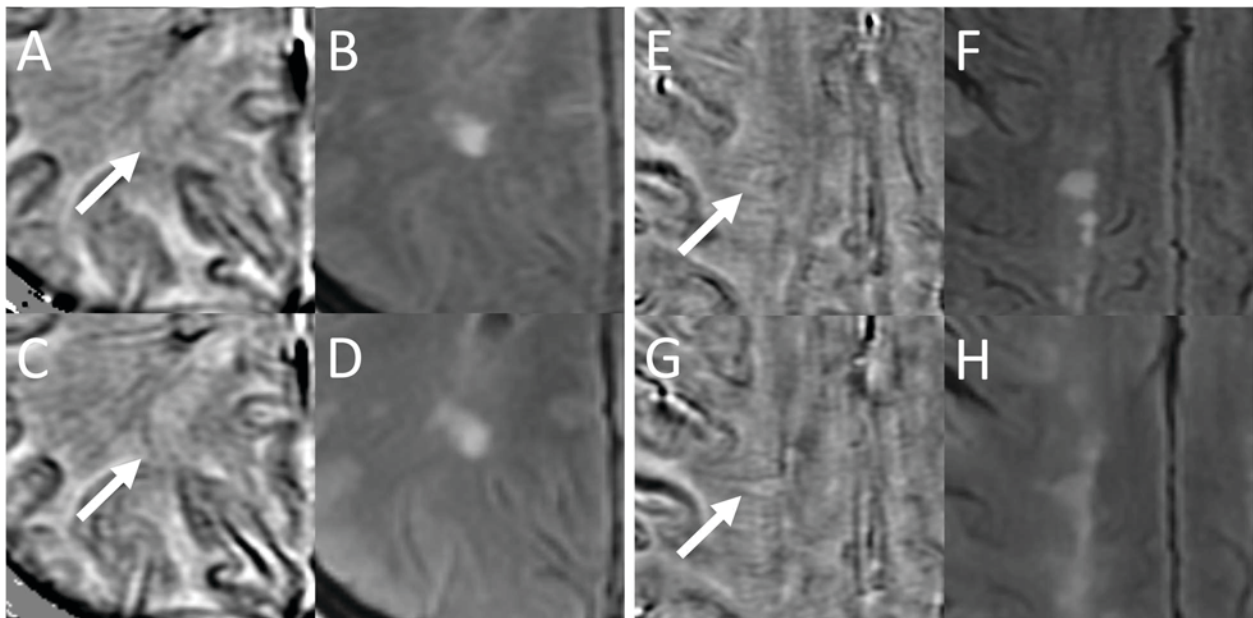


Figure S3-Lesions initially classified as not paramagnetic rim lesions (PRLs) at a given field strength by both readers, but classified as PRLs at subsequent 3-rater consensus review. Axial filtered-phase SWAN and FLAIR images depict such lesions in two patients with multiple sclerosis. Patient 1 is 49-year-old man [1.5 T: filtered-phase SWAN (A), FLAIR (B); 3 T: filtered-phase SWAN (C), FLAIR (D)]. Patient 2 is 64-year-old man [1.5 T: filtered-phase SWAN (E), FLAIR (F); 3 T: filtered-phase SWAN (G), FLAIR (H)]. In patient 1, the lesion identified on FLAIR was initially classified as an isointense lesion at 1.5 T but a PRL at 3 T; however, the lesion was classified as a PRL as well at 1.5 T at later consensus review, when a faint paramagnetic rim was identified. In patient 2, the lesion on FLAIR was initially classified as PRL at 1.5 T but as isointense at 3 T; however, the lesion was classified as a PRL as well at 3 T at later consensus review. The increased susceptibility of the vessels at 3 T contributes to a more heterogeneous-appearing lesion that obscures the paramagnetic rim. SWAN = susceptibility-weighted angiography

