Levamisole-induced leukoencephalopathy mimicking Baló disease

Figure Brain MRI in a patient with levamisole-induced leukoencephalopathy

Axial views show 2 irregular oval lesions (T1 hypointense and T2 hyperintense) in the white matter of bilateral frontal lobes, with the larger left lesion shaped in a concentric ring (figure, A, B). Sagittal view shows ring enhancement after Gd-DTPA administration (C).

A 42-year-old man presented with subacute onset of right hemiparesis and mild cognitive impairment, who had taken 600 mg oral levamisole for ascariasis 30 days prior. Neuroimaging revealed 2 irregular lesions in the white matter of bilateral frontal lobes. The left larger lesion showed the shape of a concentric ring (figure, A and B), and after Gd-DTPA administration, both lesions demonstrated prominent ring enhancement¹ (figure, C). The patient was diagnosed with levamisole-induced leukoencephalopathy, mimicking Baló disease, and treated with high-dose IV glucocorticoid therapy.² Within 3 months, the patient's symptoms improved and a repeat MRI scan showed that the previous lesions had decreased in size.

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