Atypical Presentation of Lyme Neuroborreliosis: Reversible Extra Pyramidal Syndrome and Cognitive Impairment

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A 66-year-old woman presented with asymmetric rigidity predominantly on the left side and memory loss (initial MMSE at 15/30). No tick bite was reported. Cerebrospinal fluid analysis revealed hyperproteinorachia and leukocytosis with Lyme borreliosis intrathecal antibody production. A cerebral MRI demonstrated diffuse supra and infra tentorial white matter lesions sparing red nuclei and substantia nigra (Figures 1A and 1B). After 4 weeks of intravenous ceftriaxone, the parkinsonism regressed, MMSE increased at 24/30 and imaging lesions decreased (Figures 2A and 2B). Regressive dementia after Lyme neuroborreliosis is well described in literature (1) but only few cases report regressive Parkinson syndrome (2).

References
Figures:
Figure 1: axial (A) and coronal (B) T2 FLAIR-weighted MRI show diffuse hyperintensities of peri ventricular, cerebellar and mesencephalic white mater sparing red nuclei and substantia nigra (“face of the giant panda”)

Figure 2: axial T2 FLAIR-weighted MRI at 2 (A) and 7 months (B) show regression of these abnormalities.
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