Teaching NeuroImages: Brucellosis mimicking demyelinating disease

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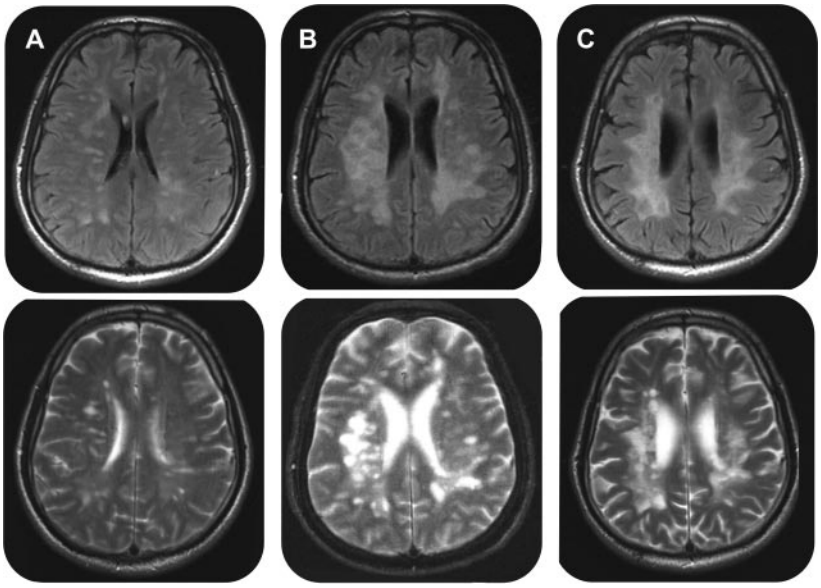
Figure Brain imaging



Fluid-attenuated inversion recovery (first row) and T2-weighted (second row) brain MRI (1.5 T) showed diffuse white matter hyperintensities (A), evolving to confluent lesions 1 month later (B). T1-weighted brain MRI showed no gadolinium enhancement and no corpus callosum involvement was found. (C) Follow-up imaging 1 year after treatment. These findings are atypical for demyelinating diseases, but are consistent with neurobrucellosis.[1]

A 57-year-old man presented with a 4-week history of fever, visual loss, and progressive ataxic gait. He worked as a truck driver and had been in contact with raw sheepskin a few months prior. Neurologic examination showed drowsiness, pseudobulbar syndrome, hyperreflexia, ataxia, and optic disc edema. He had a lymphocytic pleocytosis and diffuse hyperintense white matter lesions on brain MRI (figure). Serum and urine PCR were positive for *Brucella* spp. Rheumatologic and other serologic tests were negative. Partial improvement was achieved with doxycycline, rifampin, and trimethoprim-sulfamethoxazole.

Brain MRI suggesting demyelinating disease with atypical clinical presentation should raise other diagnostic possibilities such as nervous system infections and acute disseminated encephalomyelitis.[1,2]

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