String of pearls around the brainstem

A case of neurosarcoidosis

Figure MRI findings of leptomeningeal neurosarcoidosis

Sagittal (A) and axial (B) section of T1-weighted, gadolinium-enhanced brain MRI on admission.

A 35-year-old woman presented with 2 months of chronic headache. Her history was remarkable for bilateral uveitis. There was no nuchal rigidity or neurologic deficit. CSF revealed a lymphocytic pleocytosis, elevated protein, and hypoglycorrhachia (23 mg/dL). Culture for acid-fast bacilli was negative. Chest x-ray revealed bilateral hilar lymphadenopathy. There was an increased CD4/CD8 ratio in a bronchoalveolar lavage sample. Angiotensin-converting enzyme was 14.5 IU/L. Brain MRI disclosed nodular leptomeningeal enhancement mainly along the brainstem, with a “string of pearls” appearance (figure). Less than 20% of cases of neurosarcoidosis show moderate hypoglycorrhachia,¹ and most of them had leptomeningeal involvement.

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