Cerebral Amyloid Angiopathy-Related Inflammation Associated with Latent Syphilis

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Introduction: Cerebral amyloid angiopathy-related inflammation (CAAri) is a distinct subtype of cerebral amyloid angiopathy (CAA). It can resolve with or without immunosuppressive therapy. According to existing criteria, CAAri diagnosis is established by excluding other diseases that can have similar clinical and MRI presentations.

Method: Case study.

Results: A 63-year-old woman was admitted after an episode of confusion and fluctuating altered sensation over left side of her face, shoulder, and arm. Brain MRI showed white matter hyperintensity (WMH) on T2/FLAIR with cortical swelling and mild sulcal effusion of the left temporal and occipital lobes consistent with CAAri, as well as some non-specific hyperintensities in the basal ganglia and pons. All neuro-immunological tests for alternative causes were negative, except a positive serum and CSF Treponema Pallidum particle agglutination test and automated enzyme immunoassays. Intravenous prednisolone 1g for 5 days was started, followed by 60 mg daily. One month later, MRI showed almost complete resolution of WMH with a stable number of microbleeds. During 4 months of treatment, there were 4 more episodes of numbness and tingling in the hand and face on the left side, as well as significant cognitive decline that was confirmed by neuropsychological testing. Repeated serological testing and CSF analysis confirmed late latent syphilis and the patient was prescribed the antibiotic therapy.

Conclusion: Some coexisting diseases in patients with CAAri can be triggers as well as affect recovery, and they require detection and prompt treatment.