

Teaching NeuroImages: A neurosyphilis case presenting with atypical neuroradiologic findings

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A 51-year-old man presented with memory loss, behavioral changes, and generalized seizures for 4 months. Mini-Mental State Examination (MMSE) score was 11. MRI showed hyperintensities in multiple cortical areas and thalami (figure, A–C). Diffusion was restricted in certain areas (figure, D and E). Treponemal antibody tests were positive in serum and CSF. He was treated with penicillin. Six months later, his behavior and memory improved considerably (MMSE 20).

Viral encephalitides, Wernicke encephalopathy, and prion diseases are included in differential diagnosis of these radiologic findings. This case shows that neurosyphilis can mimic these neuroimaging findings in addition to others.¹ A clinical suspicion for neurosyphilis is crucial for diagnosis.

AUTHOR CONTRIBUTIONS

Nergiz Ağayeva contributed to manuscript preparation, data analysis, and interpretation of clinical data. Kader K. Oguz contributed to analysis and interpretation of radiologic data. Esen Saka has contributed to conceptualization of the study and revising the manuscript.

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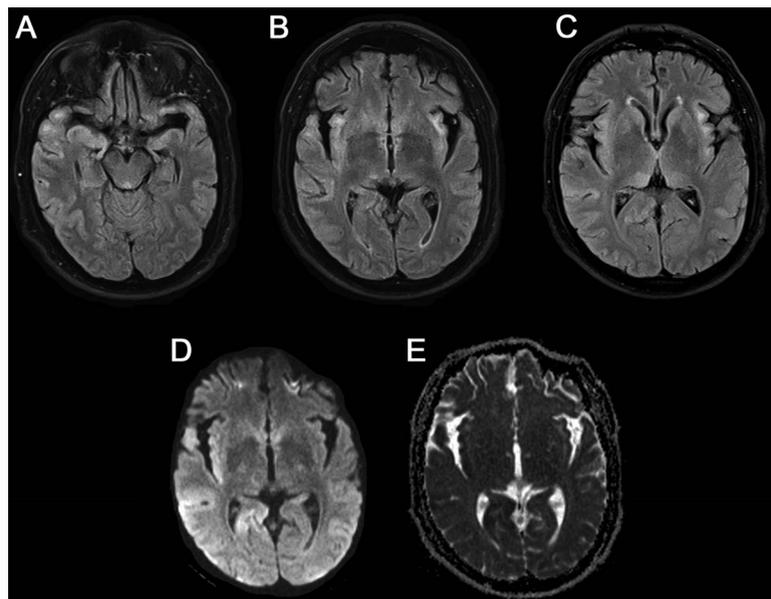
DISCLOSURE

The authors report no disclosures relevant to the manuscript. Go to Neurology.org for full disclosures.

REFERENCE

1. Fadil H, Gonzalez-Toledo E, Kelley BJ, Kelley RE. Neuroimaging findings in neurosyphilis. *J Neuroimaging* 2006; 16:286–289.

Figure Neurosyphilis: MRI findings



Axial fluid-attenuated inversion recovery images (A–C) show hyperintensity of bilateral mesial temporal structures, insula, pulvinar of the thalami, and right temporo-occipital cortex. Isotropic trace diffusion-weighted imaging (D) and apparent diffusion coefficient (E) maps show restricted diffusion in the right temporo-occipital cortex and right insula.

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