Teaching NeuroImages: Gummatous neurosyphilis

An atypical presentation in a patient with HIV

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Figure MRI features of gummatous neurosyphilis pretreatment and posttreatment

(A) Axial T2 MRI shows diffuse thickening of the cisternal portion of the right oculomotor nerve. (B) Contrast-enhanced T1 MRI exhibits strong enhancement of the lesion. (C) Axial T2 MRI and (D) contrast-enhanced T1 MRI demonstrate complete radiographic resolution 4 months after treatment.

A 29-year-old HIV-infected man, on antiretroviral treatment with negative viral load and a low CD4+ T-cell count ($344/\text{mm}^3$), presented with right eyelid ptosis and diplopia. On examination, right pupil was dilated, without reaction to light or accommodation. Extraocular movements were impaired in all directions, except abduction.

Serum venereal disease research laboratory (VDRL) and *Treponema pallidum* hemagglutination (TPHA) were positive (titer of 1/512 and 1/10,240, respectively), confirmed in CSF:

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VDRL positive, TPHA titer of 1/320 with 92/ μ L mononuclear cells, 55 mg/dL of protein, normal glucose.

MRI showed an enlarged and enhancing right oculomotor nerve (figure, A and B). The patient was treated with a 2-week course of penicillin with complete radiographic resolution (figure, C and D) and partial clinical recovery.¹ Although very rare, neurosyphilis can affect the cranial nerves and should be suspected in a coinfecting patient with HIV.²

Author contributions

Helena Sá e Silva: manuscript concept and design, acquisition of imaging data, analysis and interpretation of data. Catarina Oliveira Paulo: manuscript concept and design, acquisition of clinical data, analysis and interpretation of data. Frederico Duarte: acquisition of clinical data, analysis and interpretation of data. Ricardo Correia Abreu: acquisition of clinical data, analysis and interpretation of data, critical revision of manuscript for

intellectual content. Isabel Neves: acquisition of clinical data, analysis and interpretation of data, critical revision of manuscript for intellectual content. Pedro Moniz: manuscript concept and design, analysis and interpretation of data, critical revision of manuscript for intellectual content.

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Disclosure

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