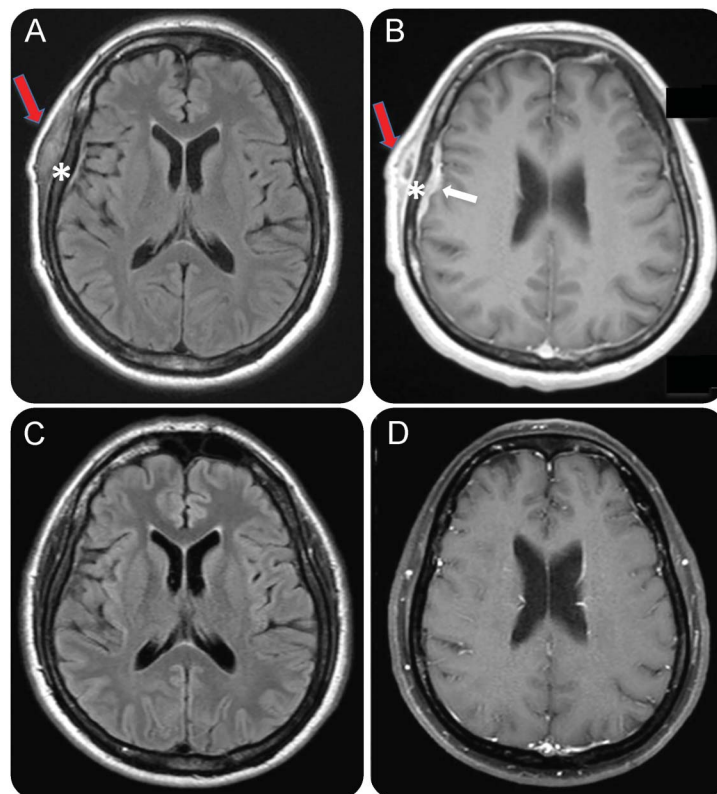


# Teaching NeuroImages: Skull and dural lesions in neurosyphilis

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**Figure** Skull and dural lesions on MRI scans before and after treatment



Axial FLAIR (A) and T1 postgadolinium (B) images show a small lesion with ring enhancement located in the periosteum of the right temporal region (red arrows) and dural enhancement in the right frontotemporal region (white arrow). There is also subtle signal change in the FLAIR sequences and fine impregnation of the diploe between intra- and extracranial lesion (asterisks). Axial FLAIR (C) and T1 postgadolinium (D) images show healing of the lesions after treatment. FLAIR = fluid-attenuated inversion recovery.

A 42-year-old man who was HIV negative presented with supraclavicular lymphadenopathy, headache, and soft tissue enlargement in the right temporal region. MRI showed a periosteum enlargement associated with dural thickening (figure, A and B). A venereal disease research laboratory test was 1/1,024, with an increased CSF protein level and cell count. The patient received benzylpenicillin and exhibited complete remission of the lesions (figure, C and D). Although atypical, bone disease in secondary syphilis may occur,

especially in the skull. It is usually described as subcutaneous lesions, edema in the adjacent bone medullary, and dural thickening. For patients with this imaging pattern, syphilis should be included in the differential diagnosis.<sup>1,2</sup>

## AUTHOR CONTRIBUTIONS

Marcos Rosa Júnior: design or conceptualization of the study, analysis or interpretation of the data, drafting or revising the manuscript for intellectual content. Thalita de Almeida Caçador: analysis or interpretation of the data. Claudia Biasutti: analysis or interpretation of the data. Augusto Meneghelli Galvão Gonçalves: analysis or interpretation of the data.

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Carlos Urbano Gonçalves Ferreira Júnior: drafting or revising the manuscript for intellectual content.

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### DISCLOSURE

The authors report no disclosures relevant to the manuscript. Go to [Neurology.org](http://Neurology.org) for full disclosures.

### REFERENCES

1. Thompson RG, Preston RH. Lesions of the skull in secondary syphilis. *Am J Syph Gonorrhea Vener Dis* 1952;36:332–341.
2. Huang I, Leach JL, Fichtenbaum CJ, Narayan RK. Osteomyelitis of the skull in early-acquired syphilis: evaluation by MR imaging and CT. *AJNR Am J Neuroradiol* 2007;28:307–308.

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