

Central nervous system vasculitis in a patient with HIV infection: a diagnostic challenge

Vasculite do sistema nervoso central em um paciente com infecção por HIV: um desafio diagnóstico

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A 37-year-old woman with HIV infection (CD4: 5 cells/ μ l) presented with acute dysarthria and right hemiparesis. A brain CT showed nodular hyperdense lesions; MRI depicted cortico-subcortical hyperintense signals (Figure 1); MRI and CT angiography disclosed arterial stenosis suggesting vasculitis (Figure 2). The cerebrospinal fluid PCR confirmed cytomegalovirus infection. Highly-active antiretroviral

therapy was started, but there was worsening of the symptoms, and she died one month later. Brain necropsy confirmed toxoplasmosis.

CNS vasculitis in HIV patients may be caused by several infectious diseases¹, such as CMV, toxoplasmosis, HIV virus, and others². In this report we describe a HIV-infected patient with cerebral vasculitis related to co-infection.

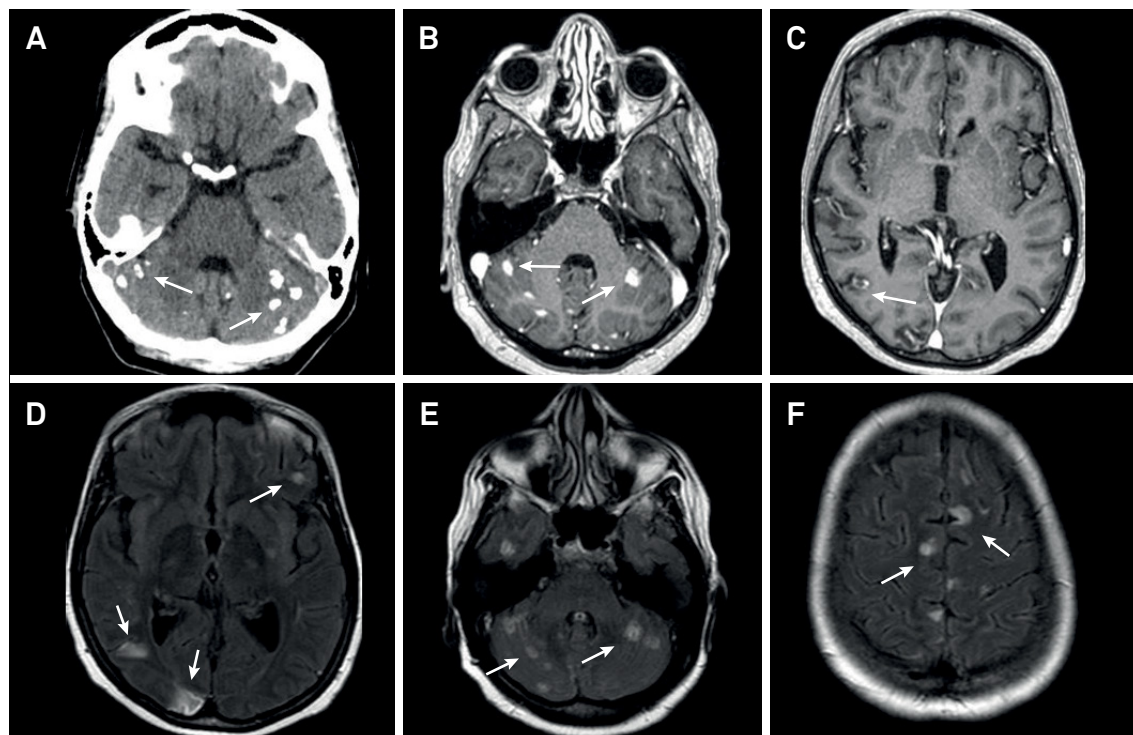


Figure 1. Axial brain CT scan without contrast shows calcification in the cerebellar hemispheres (A). Axial T1-weighted brain MRI shows corresponding areas of nodular and irregular enhancement by the gadolinium (B and C). Axial FLAIR brain MRI demonstrates several areas of hyperintense signal in the cerebral cortex and cerebellum (D, E and F).

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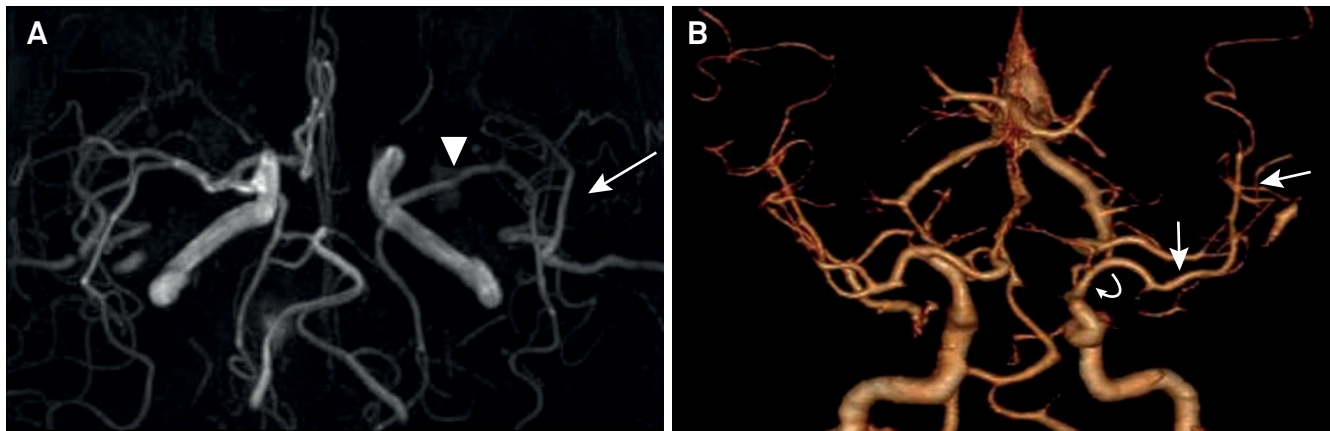


Figure 2. Brain MRI angiography shows segmental narrowing of the left middle cerebral artery (arrowhead) with reduction of flow in the opercular segments (arrow) (A). Follow up with brain CT scan angiography shows focal narrowing of the supraclinoid portion of the left internal carotid artery (curved arrow) and reduction of the flow in the left middle cerebral artery (straight arrow) (B).

References

1. Hajj-Ali RA, Calabrese LH. Diagnosis and classification of central nervous system vasculitis. *J Autoimmun.* 2014;48-49:149-52. <https://doi.org/10.1016/j.jaut.2014.01.007>
2. Finsterer J, Frank M. Parasitoses with central nervous system involvement. *Wien Med Wochenschr.* 2014;164(19-20):400-4. <https://doi.org/10.1007/s10354-014-0307-8>