Intracranial isolated varix mimicking a meningioma: the relevance of modern MRI techniques for reliable diagnosis

Variz intracraniana isolada mimetizando um meningioma: a relevância de técnicas modernas de RM para um diagnóstico confiável

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A 37-year-old man presented with headache. Brain vessel wall magnetic resonance imaging revealed a left temporal vascular ectasia with heterogeneous flow (Figure 1). Four-dimensional time-resolved magnetic resonance angiography (4DMRA) showed the lesion being progressively filled by contrast during the venous phase, with no arterial feeders (Figure 2 and Video).

Isolated intracranial varix is a focal dilatation of a vein, without neural tissue or other vessels anomalies. Its main differential diagnoses are meningioma and arteriovenous fistula. Vessel wall imaging and 4DMRA can appropriately show the internal flow, absence of arterial components and progressive filling, during the venous phase, confirming the diagnosis and avoiding unnecessary surgery.

Figure 1. Isolated intracranial varix. Ectasia of a left temporal cortical venous vessel, well identified in the axial 3-D T1 dark-blood image, for intracranial vessel wall MRI, pre- (A) and postintravenous contrast injection (B), with heterogeneous filling by the contrast agent. Note the flow-void inside the lesion and its well-demarcated and smooth contours, marking the vascular nature of the lesion.
Figure 2. Isolated intracranial varix. 4D time-resolved MR angiography showed no arterial abnormalities (A) and progressive filling of the intracranial varix during the venous phase (B, C and D), with no arterial feeders or signs of arteriovenous malformation.

References


In the manuscript "Intracranial isolated varix mimicking a meningioma: the relevance of modern MRI techniques for reliable diagnosis", DOI: 10.1590/0004-282X2019125, published in the Arq Neuropsiquiatr 2020;78(2):124-5. Epub Jan 20, 2020, on page 125, Figure 2

Where it shows:  It should be:

https://doi.org/10.1590/0004-282X2020783erratum