

Where is the aneurysm?

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Figure 1a, b.

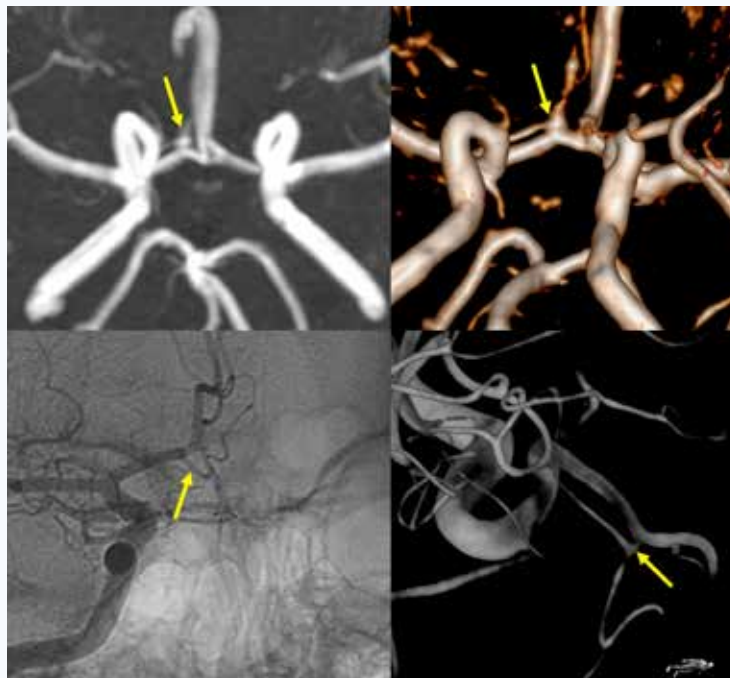


Figure 2a, b, c, d.

Pitfalls in MRA for aneurysms detection

The time of flight (TOF) MR angiography is the most common magnetic resonance angiography method used in everyday clinical practice. However the spatial resolution especially for vessels with low flow, may compromise the accuracy of the method. In these two cases, the TOF-MRA showed small aneurysms that actually were the origin of small normal arteries, corresponding to unusual anatomic variation. Caution is indicated for the interpretation of MRA images, especially for small aneurysms.

Figure 1a. MIP projection from TOF-MRA: A small saccular aneurysm seems to emerge from the initial section of the A2 segment of right Anterior cerebral artery (arrow). 1b. In 3d Rotational Angiography however, this is actually the origin of an early cortical branch (frontopolar or orbitofrontal branch).

Figure 2a. 32 yo female admitted for DSA and possible treatment for a small aneurysm in right A1 artery, shown in MIP projection of a TOF-MRA (a). Before the DSA, the same images post-processed again with volume - rendering technique where small branches seem to be emerged from the supposed aneurysm (b). The case confirmed in 2D and rotational angiography images (c, d).