Case Report: Left PCA Fusiform Aneurysm

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Patient history

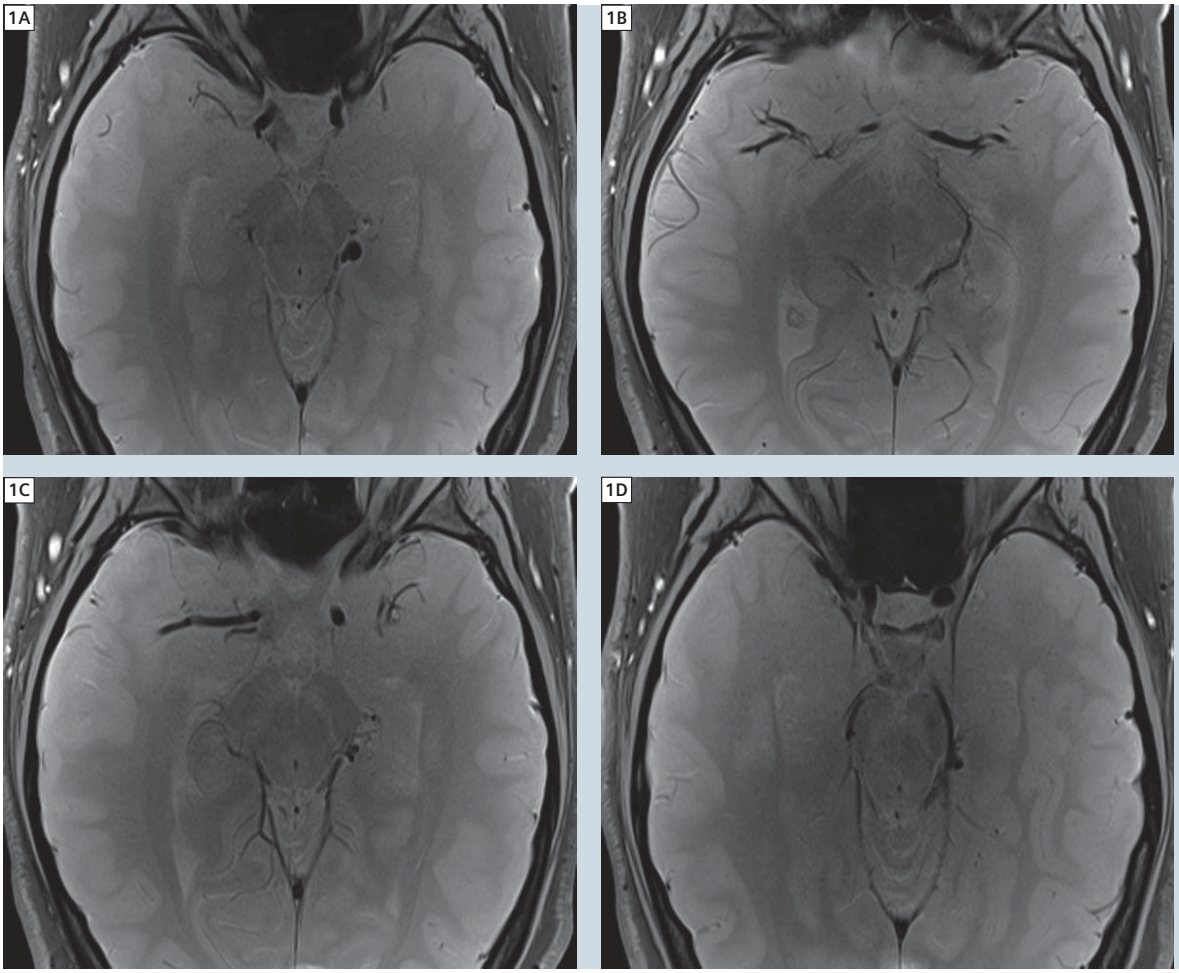
Patient presented for yearly follow-up of a 6 mm diameter Fusiform Aneurysm of the left PCA. Previous imaging has been done using a 1.5 Tesla system.

Sequence details

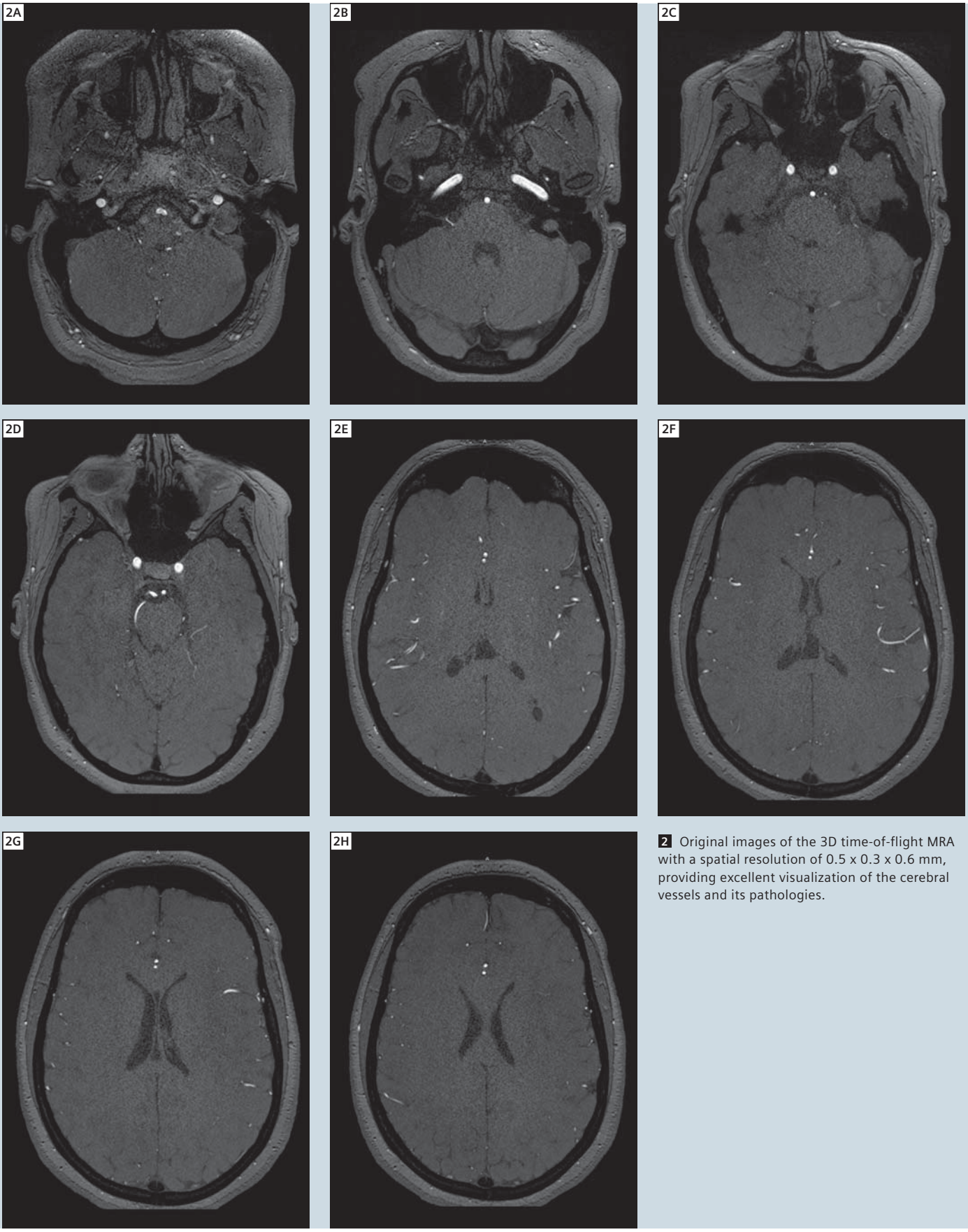
The following images were acquired on our 3T MAGNETOM Trio, A Tim System using the 32-channel head coil: multiplanar T1-weighted, T2-weighted, susceptibility-weighted (SWI) imaging and 3D MOTSA MR Angiography (MRA). "Balanced" transverse imaging using SPAIR was performed to demonstrate any thrombus within the aneurysmal dilation. TR 2250 ms, TE 12 ms, spatial resolution 0.4 mm x 0.4 mm x 2.5 mm, SPAIR, FOV 160 mm, Matrix 256 x 320, Bandwidth 130 Hz/Pixel, PAT factor 2. 3D Time of Flight MRA spatial resolution 0.5 x 0.3 x 0.6 mm, FOV 200 mm, Phase FOV 80.7, TR 25 ms, TE 4.63 ms, Flip angle 15°, Matrix 704 x 60%, Phase resolution 60%, Slice Resolution 66%, PAT factor 2, TONE Ramp 70%.

Image findings

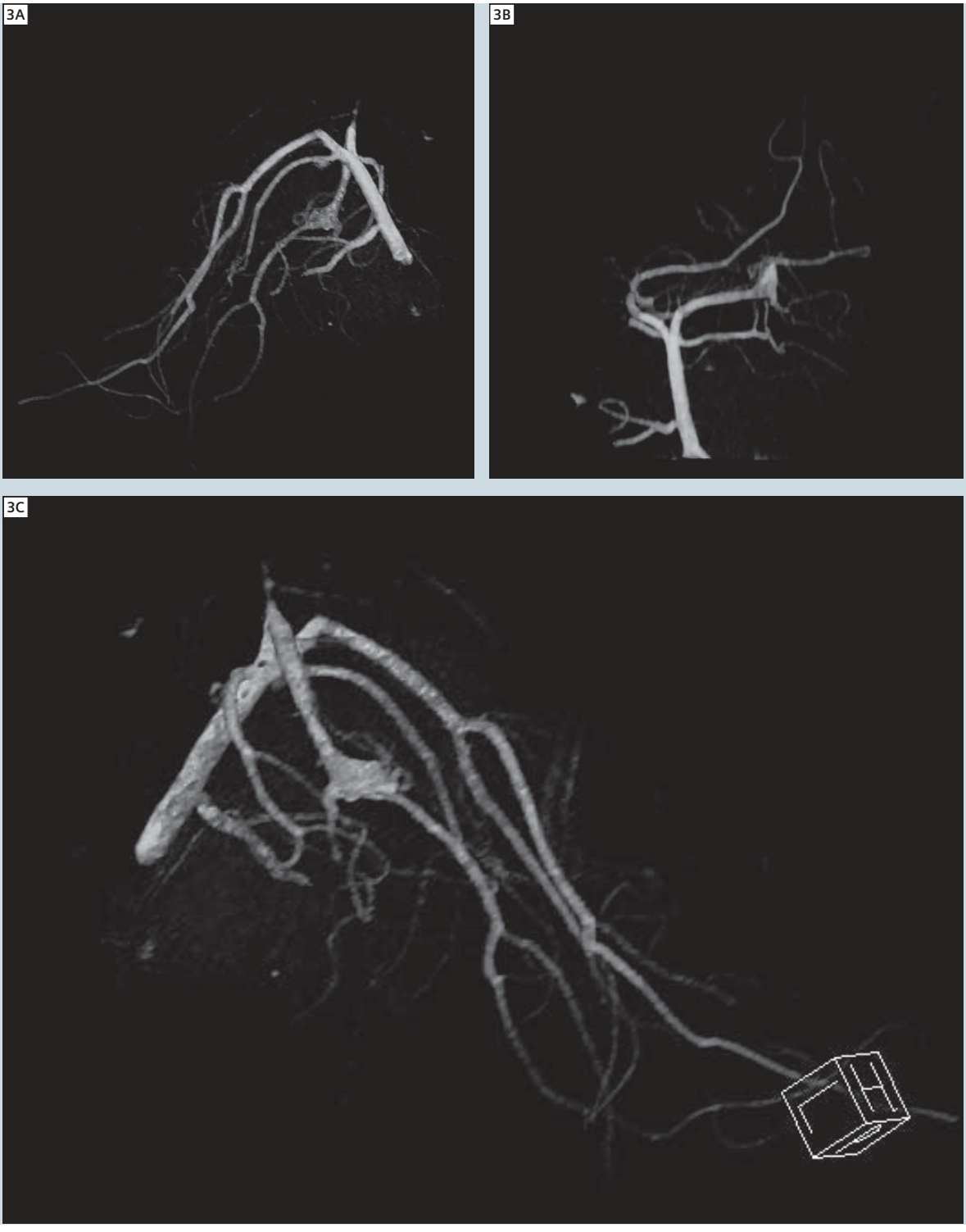
Known left PCA aneurysm approximately 6 mm in diameter demonstrates no interval change. Signal void on fat suppressed "balanced" images demonstrates no evidence of calcification or hemorrhage. No further aneurysms are demonstrated.



1 The T2-weighted transversal Turbo Spin Echo images, acquired with MAGNETOM Trio, A Tim system, using the 32-channel Head Matrix coil, show the 6 mm sized aneurysm of the left PCA.



2 Original images of the 3D time-of-flight MRA with a spatial resolution of 0.5 x 0.3 x 0.6 mm, providing excellent visualization of the cerebral vessels and its pathologies.



3 Based on 3D time-of-flight MR angiography, a maximum intensity projection (MIP) was calculated for improved evaluation of the extend, configuration and localization of the small sized aneurysm of the left PCA.