Teaching NeuroImages:

A rare cause of trigeminal neuralgia

Dysplastic venous aneurysm of dural arteriovenous fistula

Muzaffer Saglam, MD
Vania Anagnostakou, MD
Naci Kocer, MD
Civan Islak, MD
Osman Kizilkilic, MD

Correspondence to
Dr. Saglam:
mzsaglam@yahoo.com

Figure 1 Axial MRI

(A) T2-weighted axial image shows a large lesion compressing the pons and root entry zone of the trigeminal nerve (arrow). (B) 3D T2 short tau inversion recovery sampling perfection with application optimized contrasts using varying flip angle evolutions sequence delineates the lesion (thin arrows). Curved arrow shows hypointense jet corresponding to an arterial-ized flow. Both trigeminal nerves are indicated with a star.

A 56-year-old man presented with episodic intense facial pain. Trigeminal neuralgia was the presumed diagnosis. MRI revealed vascular compression of the root entry zone (REZ) of the trigeminal nerve (TN) (figure 1, A and B). A dural arteriovenous fistula was detected at the left side of the cerebellar tentorium on digital subtraction angiography (figure 2). A dysplastic venous aneurysm of the draining vein was determined to be the compressive vascular lesion seen on MRI. Trigeminal neuralgia is a common neuropathic disorder characterized by episodes of intense facial pain, most often because of a vascular compression of the REZ of the TN.^{1,2}

AUTHOR CONTRIBUTIONS

M. Saglam: data collection, data analysis, manuscript writing/editing. V. Anagnostakou: manuscript writing/editing. N. Kocer: data analysis. C. Islak: data analysis. O. Kizilkilic: data analysis.

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From the Department of Radiology (M.S.), GATA Haydarpaşa Training Hospital, Uskudar, Istanbul, Turkey; the Department of Radiology (V.A.), Evangelismos General Hospital, Athens, Greece; and the Department of Radiology (N.K., C.I., O.K.), Division of Neuroradiology, Cerrahpaşa Medical Faculty, Istanbul University, Kocamustafapasa, Turkey.

The stylomastoid artery (short arrow) and middle meningeal artery (long arrow) are seen as feeders. A dysplastic venous aneurysm is striking (star). The lateral mesencephalic vein (plus) empties the fistula. There are also a few small draining veins (arrowhead).

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