

Teaching NeuroImages:

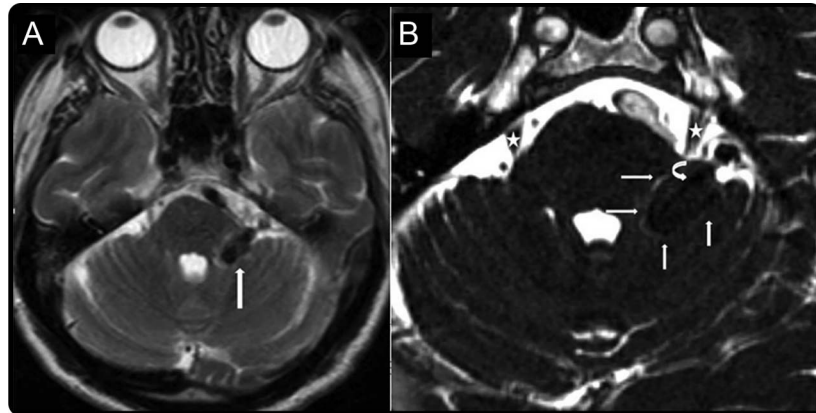
A rare cause of trigeminal neuralgia

Dysplastic venous aneurysm of dural arteriovenous fistula

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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 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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DISCLOSURE

The authors report no disclosures relevant to the manuscript. Go to Neurology.org for full disclosures.

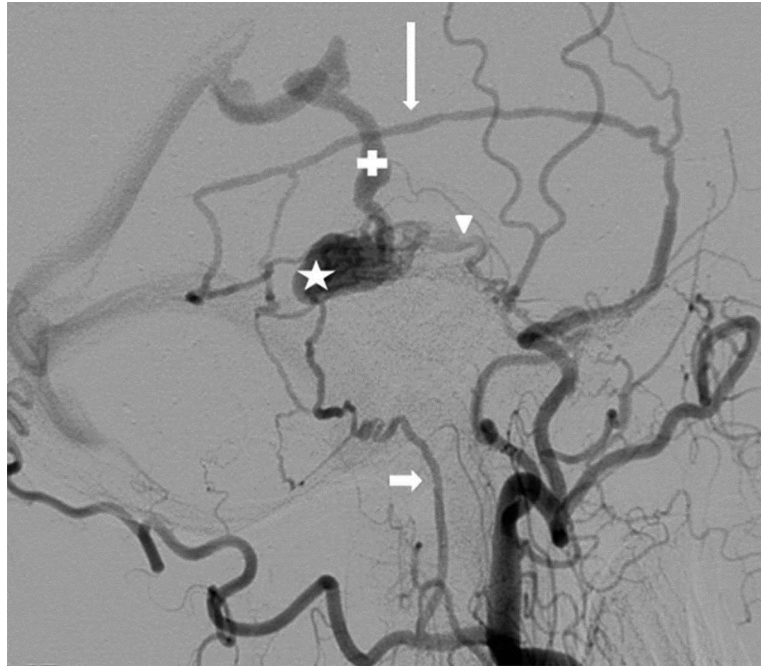
REFERENCES

1. Headache Classification Subcommittee of the International Headache Society. The International Classification of Headache Disorders, 2nd ed. Cephalalgia 2004; 24:1–60.
2. Matsushige T, Nakaoka M, Ohta K, Yahara K, Okamoto H, Kurisu K. Tentorial dural arteriovenous malformation manifesting as trigeminal neuralgia treated by stereotactic radiosurgery: a case report. Surg Neurol 2006;66:519–523.

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Figure 2 Digital subtraction angiography



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).