EMIFACIAL spasm is characterized by involuntary, intermittent, and usually unilateral twitching of portions of muscles innervated by the facial nerve. This syndrome is usually caused by vascular lesions and tumors. Arterial compression of the nerve has been described as the most common factor; venous compression has been reported in limited cases. We report a rare case in which the offending vessel was the parenchymal segment of a venous angioma.

Case Report

This 53-year-old woman, who had suffered for more than 2 years from muscle twitching on the left side of her face, was admitted to the neurosurgical ward in September 1995. Her symptom initially was confined to the orbicularis oculi muscle; however, 6 months after it appeared, it had spread to involve other muscles innervated by the facial nerve. Magnetic resonance imaging, performed after gadolinium injection, showed a caput medusae–like enhancement in the left cerebellar hemisphere (Fig. 1). In the same area cerebral angiography demonstrated a characteristic venous angioma with drainage into the sigmoid sinus (Fig. 2).

Operation. A left retromastoid craniectomy was performed. The offending vessel was identified as the distal portion of the parenchymal segment of the angioma. It was located between the facial and auditory nerves (Fig. 3 left). To avoid the possibility of venous infarction, the vein was carefully dissected away from the exit zone of the facial nerve. Small pieces of shredded Teflon were placed between the nerve and the vessel (Fig. 3 right).

Key Words • hemifacial spasm • microvascular decompression • venous angioma

Fig. 1. A gadolinium-enhanced T1-weighted magnetic resonance image showing an enhanced caput medusae–like lesion (arrow) in the left cerebellar hemisphere.
Hemifacial spasm caused by a venous angioma

**Postoperative Course.** The patient’s spasm completely disappeared 1 week after surgery without any neurological deficit.

**Discussion**

Hemifacial spasm caused by venous compression is not rare. However, a case in which the offending vessel is a result of a venous angioma is extremely rare. Cerebral angiography in this case revealed the fact that a large area of the cerebellar venous drainage depended on this angioma. Preservation of the vein is thus a key point for treatment of hemifacial spasm and prevention of any possibility of venous infarction.

**References**


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Address reprint requests to: Han-Jung Chen, M.D., Ph.D., Department of Neurosurgery, Chang Gung Memorial Hospital, 123 Ta-Pei Road, Niao-Sung Hsiang, Kaohsiung Hsien, Taiwan.

**Fig. 2.** Cerebral angiogram demonstrating a characteristic venous angioma in the left cerebellar hemisphere.

**Fig. 3.** Operative photographs. *Left:* The parenchymal segment of this venous angioma (arrow) is shown compressing the facial nerve (arrowhead) and the cortical draining vein of the angioma (double arrows). *Right:* Small pieces of shredded Teflon (arrow) are placed between the nerve and the parenchymal segment of the angioma.