Hemifacial spasm case reports

Liu et al. reported a 48-year-old man with an unusual abnormal muscular response (AMR) during microvascular decompression under endoscope assistance. The morphology and number of AMRs were influenced by different stimulation and recording sites. Abnormal muscular response disappeared and hemifacial spasm was completely relieved without facial paralysis postoperatively [1].

2020

A 43-year-old female with a hemifacial spasm of typical characteristics 6 months after onset. Upon clinical examination, a severe contraction of the orbicularis oculi, orbicularis oris, and superficial muscles of the neck displaying 50 crisis per hour was revealed. Brain magnetic resonance imaging showed the absence of the facial nerve vascular loop in the cisternal portion, with evidence of an intraventricular tumor in relation to the medial portion of the fourth ventricle at the facial colliculus level, indicating a secondary origin of hemifacial spasm. Preoperative electromyography demonstrated irritative electric activity in the muscular branches of the facial nerve. A telovelar approach was performed to the fourth ventricle with intraoperative electrophysiology monitoring, with immediate resolution of the irritative activity after complete tumor resection. The result of the histopathologic study was a choroid plexus papilloma.

Fourth ventricle tumors with extrinsic compression of the facial colliculus represent <0.6% of the causes of hemifacial spasm. Its relationship with choroid plexuses papilloma is being described as the first case reported in the literature. Clinical correlation, imaging, and intraoperative findings in conjunction with intraoperative electrophysiology recordings allow predicting the resolution of symptoms after resecting the lesion [2].

2019

A 47-year-old woman presented with progressive hearing loss, pulsatile tinnitus, and hemifacial spasm. Neuroimaging displayed a hypervascular tumor occupying the temporal bone, extending to the cervical region through the jugular foramen, and to the external auditory canal. Preoperative feeder occlusion was successfully performed without any additional symptoms, while carefully evaluating the provocative test. Near-total resection of the tumor was achieved through the transjugular transsigmoid approach with high-cervical exposure under detailed neuromonitoring, including continuous facial nerve monitoring and auditory brainstem response. In this patient, in whom the tumor did not invade intradurally and the sigmoid sinus was already occluded preoperatively, the sinus was managed only by coagulation, to avoid unnecessary dural opening and the risk of Cerebrospinal fluid fistula. Anterior facial nerve rerouting was not required since the tumor removal was accomplished through the corridor above and below the fallopian bridge. The patient had no new neurological deficits, and her pulsatile tinnitus and hemifacial spasm disappeared after the surgery. Her hearing disturbance improved postoperatively. The link to the video can be found at: https://youtu.be/gqf3dxHlv_0 [3].

Takeda et al. report the successful treatment of a patient with hemifacial spasm due to a tortuous vertebral artery that appeared to have developed to compensate for agenesis of the ipsilateral carotid artery. The 51-year-old man presented with a 1-year history of progressive left hemifacial spasm. His medical history was otherwise unremarkable except for untreated mild hypertension. Magnetic resonance angiography and bone window computed tomography demonstrated congenital agenesis of the left carotid artery and compression of the root exit zone of the left facial nerve by a tortuous left vertebral artery (VA). Microvascular decompression was performed via a left suboccipital craniotomy, and the offending vessel was identified using endoscopy. The vertebral artery was successfully transposed using polytetrafluoroethylene (PTFE) tape and a PTFE ball (Bard PTFE felt, Tempe, Arizona). This is the first report of a patient with hemifacial spasm caused by an ectatic VA associated with agenesis of the ipsilateral carotid artery [4].

A 61-year-old female presented with 4 years history of left-sided hemifacial spasm. Head MRI and angiography indicated left vertebral artery dissecting aneurysm which compressed ipsilateral cranial nerves Ⅶ and Ⅷ. Microvascular decompression was performed. The dissecting aneurysm was pushed apart and the distal part of the parent artery was adhered to the dura on the petrosum. The compressed nerves were totally decompressed. The symptom of facial spasm was completely resolved immediately after surgery and did not recur during 6 months of follow up [5].

1)
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2)
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3)
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5)
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