Geniculate neuralgia surgery

Surgical treatment should be offered if medical treatment fails. The two commonest surgical options are transection of the nervus intermedius, and microvascular decompression of the nerve at the nerve root entry zone of the brainstem. However, extracranial intratemporal division of the cutaneous branches of the facial nerve may offer a safer and similarly effective treatment.

The response to medical treatment for this condition varies between individuals. The long-term outcomes of surgery remain unknown because of limited data [1].

Rupa et al., postulate that geniculate ganglionectomy may be ineffective as the sole treatment for certain cases of geniculate neuralgia, and that nervus intermedius section may also be required to achieve a more complete deafferentation [2].

Excision of the nervus intermedius and/or of the geniculate ganglion by the middle cranial fossa approach without the production of facial paralysis, sometimes in combination with selective section of the Vth cranial nerve, has been successful in relieving the pain of geniculate neuralgia.

Microvascular decompression

Microvascular decompression for geniculate neuralgia.

Complications

High-frequency hearing loss occurred after MVD for TGN, GPN, or GN, and the greatest incidence occurred on the ipsilateral side. This hearing loss may be a result of drill-induced noise and/or transient loss of cerebrospinal fluid during the course of the procedure. Changes in intraoperative BAEP waveforms were not useful in predicting HFHL after MVD. Repeated postoperative audiological examinations may be useful in assessing the prognosis of HFHL [3].

1)
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2)
Rupa V, Weider DJ, Glasner S, Saunders RL. Geniculate ganglion: anatomic study with surgical implications. Am J Otol. 1992 Sep;13(5):470-3. PubMed PMID: 1443083.
3)
Thirumala P, Meigh K, Dasyam N, Shankar P, Sarma KR, Sarma DR, Habeych M, Crammond D, Balzer J. The incidence of high-frequency hearing loss after microvascular decompression for trigeminal neuralgia, glossopharyngeal neuralgia, or geniculate neuralgia. J Neurosurg. 2015 Dec;123(6):1500-6. doi: 10.3171/2014.10.JNS141101. Epub 2015 May 1. PubMed PMID: 25932612.