Otalgia

General information

Because of redundant innervation of the region of the ear, primary otalgia may have its source in the 5th, 7th, 9th, or 10th cranial nerves or the occipital nerves [1]. As a result, sectioning of the 5th, 9th or 10th nerve or a component of the 7th (nervus intermedius, chorda tympani, geniculate ganglion) has been performed with varying results [2] Also, microvascular decompression (MVD) of the corresponding nerve may also be done [3] Work-up includes neurotologic evaluation to rule out causes of secondary otalgia (otitis media or externa, temporal bone neoplasms...). CT or MRI should be done in any case where no cause is found.

Non-neuralgic causes of otalgia should always be excluded by a thorough clinical examination, audiological assessment and radiological investigations before making a diagnosis of geniculate neuralgia [4].

Primary otalgia

Primary otalgia is unilateral in most (≈ 80%). Trigger mechanisms are identified in slightly more than half, with cold air or water being the most common [5]. About 75% have associated aural symptoms: hearing loss, tinnitus, vertigo. Pain relief upon cocainization or nerve block of the pharyngeal tonsils suggests glossopharyngeal neuralgia; however, the overlap of innervation limits the certainty.

An initial trial with medications used in trigeminal neuralgia (carbamazepine, phenytoin, baclofen...) is the first line of defense. In intractable cases not responding to pharyngeal anesthesia, suboccipital exploration of the 7th (nervus intermedius) and lower cranial nerves may be indicated. If significant vascular compression is found, one may consider MVD alone. If MVD fails, or if no significant vessels are found, Rupa et al recommend sectioning the nervus intermedius, the 9th and upper 2 fibers of 10th nerve, and a geniculate ganglionectomy (or, if glossopharyngeal neuralgia is strongly suspected, just 9th and upper 2 fibers of 10th) [6].

1)
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2) , 5) , 6)
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3)
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4)
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