It is well-known that idiopathic neuralgias of the trigeminal and glossopharyngeal nerves are caused by vascular compression at the root entry zone of the cranial nerves. Because they are functional diseases, initial treatment is medical, especially with carbamazepine. However, if medical therapy fails to adequately manage the pain, microvascular decompression (MVD) is prescribed. Glossopharyngeal neuralgia is rare, and combined trigeminal and glossopharyngeal neuralgia is an extremely rare disorder.

Case reports

2014

A 78-year-old man with combined trigeminal and glossopharyngeal neuralgia underwent glycerol rhizolysis of the trigeminal ganglion. The treatment led to the immediate relief of both neuralgias. We discuss the potential mechanism of this unexpected therapeutic effect with reference to the pathophysiology of trigeminal and glossopharyngeal neuralgia [1)].

2012

A 70-year-old woman presented herself to Hokkaido Neurosurgical Memorial Hospital because of paroxysms of lancinating pain in her left pharynx and another lancinating pain in her left cheek. Carbamazepine, which was prescribed at another hospital, favorably relieved the pain; however, drug eruption compelled her to discontinue the medication. The multi-volume method revealed that a root entry zone of the left glossopharyngeal nerve was compressed by the left posterior inferior cerebellar artery, and the left trigeminal artery was compressed by the left superior cerebellar artery. MVD for both nerves was performed employing a left lateral suboccipital craniotomy. She experienced complete relief of pain immediately after MVD. Combined trigeminal and glossopharyngeal neuralgia is extremely rare, but some groups noted a relatively high incidence of concurrent trigeminal neuralgia in patients with glossopharyngeal neuralgia up until the 1970's. Glossopharyngeal neuralgia includes pain near the gonion; therefore, there is an overlap of symptoms between glossopharyngeal and trigeminal neuralgias. By virtue of recent progress in imaging technology, minute preoperative evaluations of microvascular compression are possible. Until the 1970's, there might have been some misunderstanding regarding the overlap of symptoms because of lack of the concept of microvascular compression as a cause of neuralgia and rudimentary imaging technology. Minute evaluations of both symptoms and imaging are very important [2)].

2010

A patient with baseline trigeminal and glossopharyngeal neuralgia, admitted with episodes of severe hypoventilatory failure of central origin, consistent with “Ondine's Curse”. After evaluation, she was found to have a medullary capillary telangiectasia, thought to be the causative lesion, and which could explain her complete neurologic and hypoventilatory syndrome. The patient was treated with placement of a diaphragmatic pacing system, which has been effective thus far.

This case illustrates the need for investigation of centrally mediated apnea, especially when co-occurring cranial nerve neuralgia is present and cardiopulmonary evaluation is negative. It provides an example of capillary telangiectasia as the causative lesion, one that to our knowledge has not been reported before.

Placement of a diaphragmatic pacing system was warranted and became lifesaving as the patient was deemed to be severely incapacitated by chronic ventilatory insufficiency [3].

2006

A 69-year-old woman developed acute pain in the left trigeminal and glossopharyngeal nerve distributions. MR imaging demonstrated a left lateral medullary infarction (LMI) involving the left spinotrigeminal nucleus and tract, nucleus ambiguus, and solitary nucleus. Most patients presenting with trigeminal neuralgia will have disease involving the trigeminal nerve or ganglion or the primary sensory nucleus in the pons. We discuss the unusual finding of LMI associated with concurrent trigeminal and glossopharyngeal neuralgia [4].

1)
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