



Video Abstract

Microvascular decompression for a unique case of glossopharyngeal neuralgia with provokable symptomatic bradycardia: 2-Dimensional operative video

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ABSTRACT

Background: Glossopharyngeal neuralgia is a rare neurovascular compression syndrome that can lead to paroxysmal craniofacial pain and sometimes cardiovascular symptoms.^[1,2] The characteristic pathology involves a vessel (commonly a branch/loop of PICA) compressing the nerve at the root entry/exit zone at the brainstem.^[1] Microvascular decompression is a commonly used treatment approach for patients that have failed conservative measures.^[2]

Case Description: A 72-year-old male presented to the ED following four episodes of syncope. The patient had a multi-year history of right-sided burning/stabbing pain involving the submandibular area and posterior throat. His syncope was related to symptomatic bradycardia that would occur during episodes of pain. His pain was exacerbated by speaking and swallowing and could be triggered by placing his finger in the right external auditory meatus. Interestingly, this maneuver would also trigger his bradycardia. The patient had failed previous pharmacotherapy, and a pacemaker had been placed to protect him from periods of hypotension. MRI/MRA of the brain and cervical spine were unremarkable. Due to his profoundly symptomatic status, the patient was offered a right retrosigmoid craniotomy for microvascular decompression of the right glossopharyngeal nerve. The patient had complete resolution of his pain and bradycardia immediately post-operatively. He was discharged on the second postoperative day and his pacemaker was ultimately removed. The patient continues to be pain free and off medication.

Conclusion: Here we present a video case report of microvascular decompression with favorable outcome for an interesting presentation of glossopharyngeal neuralgia. The patient gave informed consent for surgery and video recording.

Keywords: Glossopharyngeal neuralgia, Microsurgery, Microvascular decompression, Retrosigmoid approach

[Video 1]-Available on:

www.surgicalneurologyint.com

Annotations^[1,2]

- 1) 0:00 – clinical presentation.
- 2) 1:44 – Rationale, risks, benefits of procedure.
- 3) 2:32 – Surgical setup and key steps.
- 4) 3:06 – Dissection to CP angle cistern.
- 5) 5:15 – Exposure of vascular compression.
- 6) 6:51 – Pledget placement.
- 7) 7:46 – Disease background.
- 8) 8:50 – Clinical outcome.

Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent.

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Conflicts of interest

There are no conflicts of interest.

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