

Microsurgical Decompression of Trigeminal Neuralgia Caused by Simultaneous Double Arterial (SCA and AICA) and Petrosal Vein Complex Compression

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J Neurol Surg B 2018;79(suppl S5):S428–S430.

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Abstract

Keywords

- ► trigeminal neuralgia
- microvascular decompression
- suboccipital craniotomy
- arterial compression
- ► venous compression

Trigeminal neuralgia is a chronic pain disorder affecting the face. In approximately 80% of cases, it is most commonly caused, when the root entry zone (REZ) of the trigeminal nerve is compressed by the superior cerebellar artery (SCA). The etiology of the remaining 20% of cases is distributed among venous, arteriovenous malformations, posterior fossa tumors, multiple sclerosis plaque compressions, and other pathologies. Combinations of those compressive factors are very rare. 1-4 Herein, we present a video clip of microvascular decompression (MVD) in a 73-year-old female, who has failed conservative treatment with 6 medications over 10 years. She was affected by a unique triple compression of the right REZ by the SCA, anterior inferior cerebellar artery (AICA), and petrosal vein complex (**> Fig. 1A**). Right-sided microsurgical decompression of the REZ of the trigeminal nerve through standard retrosigmoid craniotomy was performed by the senior author (K.I.A.). The SCA and AICA were separated from the nerve using Teflon pledgets. The petrosal vein complex was coagulated and divided, freeing up the right trigeminal nerve (**> Fig. 1B**). The patient was discharged home on the third postoperative day with complete resolution of trigeminal neuralgia.

The link to the Video can be found at: https://youtu.be/PYVvImGW0yE.



www.thieme.com/skullbasevideos

www.thieme.com/jnlsbvideos

received April 23, 2018 accepted August 12, 2018 published online September 25, 2018 DOI https://doi.org/ 10.1055/s-0038-1669968. ISSN 2193-6331. © 2018 Georg Thieme Verlag KG Stuttgart · New York

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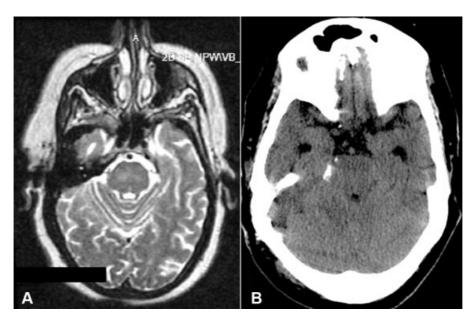


Fig. 1 (A) Preoperative T2-weighted axial magnetic resonance imaging (MRI); (B) Postoperative noncontrast axial computed tomography (CT) of brain.

Conflict of Interest None.

Acknowlegements

No financial or material support was accepted as part of this study. The authors wish to thank Andrew J. Gienapp for copy editing, preparation of the manuscript, and figure for publishing, and publication assistance.

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