

MIMICS

MIMICS software (Materialise Inc., Leuven, Belgium).

<https://www.materialise.com>

97 patients with primary [Trigeminal neuralgia](#) (TN) underwent preoperative 3D constructive interference in steady state (CISS) MRI. Image analysis was performed by an independent [observer](#) blinded to the operative findings and then compared with surgical data. The 3D reconstruction was assessed dynamically using [MIMICS](#) software (Materialise Inc., Leuven, Belgium).

The 3D relationship between visible structures seen on MRI was consistent with the intraoperative findings in all patients. All cases were divided into three groups by the degree of trigeminal nerve encroachment by [Superior petrosal vein](#) (SPV). Statistical analysis revealed that the distance from the SPV to the trigeminal nerve was significantly different among the three groups. The diameter of the SPV also differed among the three groups.

Preoperative 3D imaging provides reliable and detailed information about the intraoperative anatomical relationship between the trigeminal nerve and the SPV. This evaluation is useful for preoperative planning ¹⁾

¹⁾

Xiong NX, Zhou X, Yang B, Wang L, Fu P, Yu H, Wang Q, Abdelmaksoud A, Yuan Y, Liu W, Huang Y, Budryté K, Huang T, Zheng X. Preoperative MRI Evaluation of Relationship between Trigeminal Nerve and Superior Petrosal Vein: Its Role in Treating Trigeminal Neuralgia. J Neurol Surg A Cent Eur Neurosurg. 2019 Mar 26. doi: 10.1055/s-0038-1669399. [Epub ahead of print] PubMed PMID: 30913572.

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