

Tentorial notch meningioma

[Tentorial meningiomas](#) account for only 3-6% of all [intracranial meningiomas](#). Among them, [tentorial incisure \(notch\)](#) location must be considered as a subgroup with specific surgical anatomy and indications, morbidity, and mortality.

The best surgical approach to the [tentorial incisure](#) is still a matter of debate:

Surgical approaches to the [tentorial notch](#) included the suboccipital [retrosigmoid approach](#) or the combined [subtemporal approach](#) - [presigmoid approach](#) for Group I tentorial notch meningiomas; and the [infratentorial supracerebellar approach](#) or the [suboccipital transtentorial approaches](#) for Group II meningiomas ¹⁾.

see also [Transzygomatic approach with anteriorly limited inferior temporal gyrectomy](#).

Case series

Qin et al. retrospectively analyzed clinical and follow-up data in a consecutive series of 53 TNM patients who underwent microsurgical operation from 2011 to 2019 in [Xiangya Hospital](#). The operations were performed using various approaches. Clinical history, preoperative and postoperative neurofunction, imaging results, and surgical outcomes were collected for further classification of TNM.

All TNM cases were divided into anterior (T1), middle (T2), and posterior notch (T3). According to the direction of tumor extension and correlation with the neurovascular structures, detailed subtypes of anterior TNMs were identified as the central (T1a), posterior (T1b), and medial type (T1c). The middle TNMs were divided into the infratentorial (T2a), supratentorial (T2b), and supra-infratentorial type (T2c). The posterior TNMs were divided into superior (T3a), inferior (T3b), lateral (T3c), and straight sinus type (T3d) in reference to Bassiouni's classification. Total removal of the tumor was achieved in 46 cases, with five cases of subtotal and two cases of partial removal without any recorded deaths in our series. In total, five subtotal resected cases underwent gamma-knife treatment and achieved stable disease. Postoperative aggravation or new onset cranial nerve dysfunction occurred in some individual cases, with incidences ranging from 3.77 to 15.10% and improved preoperative neurological deficits ranging from 0 to 100%.

Further, TNM classification based on the intracranial location, extension direction, relationship with brainstem, and neurovascular structures guides preoperative evaluation, rational surgical approach selection, and surgical strategy formulation. Taking microsurgery as the main body, a satisfactory outcome of TNM treatment can be achieved for complicated tumors by combining stereotactic radiotherapy. This study demonstrates the surgical outcomes and complications in detail. Further classification might be helpful for treatment decisions in the future ²⁾.

Twenty-five [tentorial notch meningioma](#) were surgically treated between 1978 and 1993 at the Neurosurgical Department of [Krankenhaus Nordstadt](#) in [Hannover, Germany](#). Nineteen meningiomas were classified as originating from the lateral [tentorial incisura](#) (Group I) and six were from the posteromedial tentorial incisura (Group II). Clinically, the most common symptom was [trigeminal neuralgia](#), followed by [headache](#).

Neuroradiologically, 64% of the meningiomas were larger than 30 X 30 mm. Further evaluation revealed signs of brainstem compression in 88% of the patients. Radical surgical removal (Simpson I and II) was achieved in 88% of the cases. There was no mortality. Follow up revealed that 80% of patients were able to return to their premorbid activity ³⁾.

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Samii M, Carvalho GA, Tatagiba M, Matthies C, Vorkapic P. Meningiomas of the tentorial notch: surgical anatomy and management. J Neurosurg. 1996 Mar;84(3):375-81. PubMed PMID: 8609546.

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Qin C, Wang J, Long W, Xiao K, Wu C, Yuan J, Pan Y, Zhang C, Su J, Yuan X, Liu Q. Surgical Management of Tentorial Notch Meningioma Guided by Further Classification: A Consecutive Study of 53 Clinical Cases. Front Oncol. 2021 Jan 22;10:609056. doi: 10.3389/fonc.2020.609056. PMID: 33552981; PMCID: PMC7862773.

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