Medial sphenoid wing meningioma classification

- A novel classification for guiding the surgical approach for cranio-orbital lesions: a single institution case series of 45 cases and a literature review
- The lateral transorbital approach to the medial sphenoid wing, anterior clinoid, middle fossa, cavernous sinus, and Meckel's cave: target-based classification, approach-related complications, and intermediate-term ocular outcomes
- Microscopic resection of lumbar intraspinal tumor through keyhole approach: A clinical study of 54 cases
- Individualized Cerebral Artery Protection Strategies for the Surgical Treatment of Parasellar Meningiomas on the Basis of Preoperative Imaging
- Surgical management of anterior clinoidal meningiomas: consensus statement on behalf of the EANS skull base section
- Meningiomas in patients with long-term exposition to progestins: Characteristics and outcome
- Classification of Peritumoral Veins in Convexity and Parasagittal Meningiomas and Its Significance in Preventing Cerebral Venous Infarction
- Surgical Management of Tentorial Notch Meningioma Guided by Further Classification: A Consecutive Study of 53 Clinical Cases

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see Sphenoid Wing Meningioma Classification.

Al-Mefty based his classification of anterior clinoid region meningiomas on the origin of the tumor and whether arachnoid membrane is present [1] However, the presence of arachnoid membrane cannot be clearly observed preoperatively [2].

Behari et al. proposed a scoring system for predicting the extent of surgical resection in giant mSWM [3].

However, their study only included 20 patients with giant mSWM (≥ 5 cm in maximum dimension), which may lead to biased results. Moreover, they did not show any statistical analyses of their scoring system. McCracken et al. developed a scoring system for evaluating the degree of encasement of arteries surrounded by the SWM on MRI to predict postoperative ischemic complications [4].

Guduk et al. proposed a new scoring system, which included the largest tumor diameter, proximal arterial encasement, distal arterial encasement, and bone invasion pattern, to predict the extent of resection based on preoperative MRI or CT findings [5].

The evolution of 3D multimodality fusion imaging has made more accurate guidance for neurosurgery possible. It can clearly reveal the anatomic relationship of the tumor and its surrounding structures and assist in the selection of operative approach and tumor resection. Most of the feeding arteries, perforating arteries, and veins were encased or displaced by the deep-seated meningiomas, which may affect interpretation in 2D images [6].

Wang et al. described a reliable preoperative scoring system that enables surgeons to predict extent of resection and postoperative outcomes for mSWM based on 3D multimodality fusion imaging. It may aid neurosurgeons in preoperative planning for mSWM and counseling the patient about potential morbidity [7].

Nakamura et al. divided mSWM into 2 groups based on the presence or absence of CS invasion to provide clinical data concerning the visual outcome and recurrence rate [8]

see Cavernous Sinus Meningioma Classification.

see Tuberculum Sellae Meningioma Classification.

Giant medial sphenoid meningioma.

Meningioma en plaque of the sphenoid ridge.

Anterior clinoid region meningioma.

Tuberculum sellae meningioma classification.

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