

Convexity meningioma differential diagnosis

Lateral [sphenoid wing](#) (or [pterional](#)): behavior and treatment are usually similar to [convexity meningioma](#).

A 33-year-old woman presented with tingling and paresthesia on left extremity for 2 months. Magnetic resonance imaging revealed that the tumor was iso- and hypo-intensity on T1-weighted image, mixed iso- and high-signal intensity on T2-weighted images and heterogeneously enhanced with rim enhancement. Neither arachnoid cleft nor dural tail was certain but mass was located extra-axially so meningioma was suspected. During operation, tumor wasn't attached to dura at all but arachnoid attachment was seen. Pathologically, [clear cell ependymoma](#) was confirmed. Details of diagnosis and treatment of this tumor is described ¹⁾.

In a report, Lee et al. described a mass with typical image findings of a meningioma, but diagnosed as a supratentorial pilocytic astrocytoma with early anaplastic transformation ²⁾.

A 68-year-old man presented with abnormal behavior and Todd's paralysis on the right side after having taken a bath. Computed tomography and magnetic resonance imaging revealed a tumor mimicking convexity meningioma that had a perifocal edema, although its mass was not very large. The patient underwent surgery, and full recovery was achieved following a total removal of the lesion. Pathohistological examination demonstrated an intermediate type of [Castleman's disease](#). The final diagnosis was intracranial localized Castleman's disease because the results of the full physical examination and laboratory analyses were normal. Castleman's disease is a rare lymphoproliferative disorder of unknown etiology. Moreover, intracranial involvement is very rare. In cases of intracranial meningeal tumors with perifocal edema, we should take this disease into consideration in the differential diagnosis ³⁾.

A 46-year-old previously healthy male presented with a gradual painless loss of vision in the right eye. Cerebral MRI showed a right parietal-occipital lesion resembling an atypical meningioma. Surgical resection was performed, and immunohistochemical staining results concluded that it was a very uncommon location of a grade 3 ependymoma. Favorable outcome was observed one year after completion of postoperative radiotherapy. Conclusion Clinical and imaging aspects are misleading in rare brain tumors, and immunohistochemistry is essential to re-address diagnosis ⁴⁾.

A 59-year-old female patient with noncontributory medical history presented with headache and insomnia for the last 2 months. Upon admission, her neurological examination was unremarkable. Magnetic resonance imaging revealed a well-demarcated extra medullary mass, 11 × 11 mm in size, within the subdural space at the right frontal lobe. The lesion was initially interpreted as a convexity meningioma. After conducting a craniotomy on the patient, an extra-axial varix was exposed and

resected subsequently. The patient's headache was resolved soon after surgery and charged without neurologic sequelae. Extra-axial isolated cerebral varix is mimicking convexity meningioma on MR images and should be considered as a differential diagnosis. The focal erosion in the inner table of the skull could be an important character of extra-axial isolated cerebral varix. An extremely round shape and smooth contour of the lesion was another important character. Isolated cerebral varix is rare vascular lesion that is treated surgically in the case of rupture or compression of adjacent structures. The information obtained with noninvasive imaging techniques should include CTA to make a clinical decision ⁵⁾.

A 26-year-old male who presented with left focal motor seizures becoming secondarily generalized of one-year duration. Clinically and radiologically patient was diagnosed to have a right parietal convexity meningioma. However on histopathological examination a final diagnosis of intracranial Rosai Dorfman disease was rendered ⁶⁾.

Malignant B-cell lymphomas of the dura mater are very rare. A case of primary centroblastic/centrocytic lymphoma of the dura mimicking a bilateral convexity meningioma is presented.

A 50-year-old woman was referred with a 6-month history of headache and two Jacksonian seizures. Computed tomography revealed a parafalcine and bilateral convexity lesion. Cerebral angiography and magnetic resonance imaging were performed prior to surgery. At surgery, the tumor was removed subtotally. The patient was treated postoperatively by combined chemo- and radiotherapy.

Laboratory studies and follow-up examinations revealed no evidence of systemic lymphoma nor of an immunocompromised state. According to the presented case combined surgery and chemoradiotherapy seems to be an effective treatment for this rare lesion ⁷⁾.

References

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