

# Supratentorial meningioma surgery outcome

In a retrospective cohort study of 295 patients that underwent resection of a [supratentorial meningioma](#) at Odense University Hospital in between 2007-2015. Multivariate logistic regression was used to identify variables significantly correlating with pre- and postoperative seizures. Retrospective chart review was used to identify the rates of seizure incidence in patients, and the effect of AED on them.

The presence of peritumoral edema (OR:18.00, 7.44-43.58) was identified as predictor of preoperative seizure, while headache (OR:0.43, 0.22-0.84) and neurological deficit (OR:0.18, 0.09-0.39) were associated with a reduced incidence of preoperative seizures. The rates of postoperative seizure were increased in meningiomas in the left side (OR:1.91, 1.11-3.29), and reduced for tumor location in the convexity/parasagittal/falx (OR:0.72, 0.59-0.88) as well as in the absence of postoperative complications (OR:0.19, 0.10-0.36). 24.4% of the patients experienced seizures preoperatively, and a complete seizure freedom was achieved in 63.9% of them. 75.6% of the patients did not experience seizures preoperatively, but 15.2% of them then developed seizures postoperatively. A total of 20.3% of the patients experienced seizures after surgery. Time to first seizure in patients that did not experience seizures preoperatively but developed seizures after surgery, was one week (47%). However, first time postoperative seizures were also observed within one month postoperative (21%) and three months after surgery (32%). AED had a treatment success rate of 98.2% in preoperative seizures, and 98.0% in postoperative seizures.

Seizures after supratentorial meningioma surgery is common also in patients with no seizures preoperatively and mainly occurs within the first three postoperative months. AED are effective in controlling seizures <sup>1)</sup>.

<sup>1)</sup>

Seyedi JF, Pedersen CB, Poulsen FR. Risk of seizures before and after neurosurgical treatment of intracranial meningiomas. Clin Neurol Neurosurg. 2018 Jan 5;165:60-66. doi: 10.1016/j.clineuro.2018.01.002. [Epub ahead of print] PubMed PMID: 29316494.

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