## Subcortical cavernoma

The epileptogenicity of supratentorial cavernomas depends on cortical, especially mesiotemporal archicortical, involvement. Exclusively subcortical cavernomas are highly unlikely to cause epilepsy. This information is helpful in counseling patients with cavernomas regarding their risk of epileptic seizures and in patients with multiple cavernomas and epilepsy to generate a valid hypothesis of which cavernoma may cause epilepsy <sup>1)</sup>.

Thalamic cavernoma or subcortical cavernoma represent a unique challenge for surgeons in trying to identify and then use a safe corridor to access and resect the pathology.

Previous authors have described specific open microsurgical corridors based on pathology location, often with technical difficulty and morbidity.

Scranton et al presents 2 cavernomas that were resected using a minimally invasive approach that is less technically demanding and has a good safety profile. The authors report 2 cases of cavernoma:

One in the thalamus and brainstem with multiple hemorrhages and the other in eloquent subcortical white matter. These lesions were resected through a transulcal parafascicular approach with a portbased minimally invasive technique. In this series there was complete resection with no neurological complications. The transulcal parafascicular minimally invasive approach relies on image interpretation and trajectory planning, intraoperative navigation, cortical cannulation and subcortical space access, high-quality optics, and resection as key elements to minimize exposure and retraction and maximize tissue preservation. The authors applied this technique to 2 patients with cavernomas in eloquent locations with excellent outcomes<sup>2</sup>.

1)

Menzler K, Chen X, Thiel P, Iwinska-Zelder J, Miller D, Reuss A, Hamer HM, Reis J, Pagenstecher A, Knake S, Bertalanffy H, Rosenow F, Sure U. Epileptogenicity of cavernomas depends on (archi-) cortical localization. Neurosurgery. 2010 Oct;67(4):918-24. doi: 10.1227/NEU.0b013e3181eb5032. PubMed PMID: 20881556.

Scranton RA, Fung SH, Britz GW. Transulcal parafascicular minimally invasive approach to deep and subcortical cavernomas: technical note. J Neurosurg. 2016 Dec;125(6):1360-1366. PubMed PMID: 26943846.

From: https://neurosurgerywiki.com/wiki/ - **Neurosurgery Wiki** 

Permanent link: https://neurosurgerywiki.com/wiki/doku.php?id=subcortical\_cavernoma

Last update: 2025/04/29 20:30

