

Paramedian supracerebellar transtentorial approach

The paramedian [supracerebellar transtentorial approach](#) with [tentorium resection](#) is an excellent alternative route to the posterior part of [mediobasal temporal region](#), and it was enough to achieve the best neurosurgical management of tumoral and vascular lesions located in this area ¹⁾.

This approach provides precise anatomical orientation when exposing the entire length of the mediobasal temporal region (MTR), as well as the [fusiform gyrus](#), for removing any lesion. This is a technique especially for removing tumors involving the entire MTR in a single session without damaging neighboring neural or vascular structures. This approach can also be a viable alternative for selective removal of the [parahippocampal gyrus](#), [hippocampus](#), and [amygdala](#) in patients with mediobasal temporal epilepsy MTE due to hippocampal sclerosis ²⁾.

A challenging step of the paramedian supracerebellar-transtentorial approach is to expose the anterior portion of the mediobasal-temporal region (MTR), a step that seems most affected by the steepness of the tentorium.

Cranial [MRIs](#) of 100 healthy individuals were examined. Lafazanios et al. measured the tentorial and occipital angles and indirectly estimated the amount of brain tissue that remains hidden on the microscopic view in front of the [petrous apex](#). These measurements were statistically compared with the cephalic index of each person.

The mean values for the tentorial and occipital angles were 42 degrees (range: 25-53 degrees) and 98 degrees (69-122 degrees), respectively. The results proved that the higher the tentorial angle, the higher the occipital angle and the greater was the amount of hidden brain tissue. Of 100 persons, 3 (3%) were found to be dolichocephalic, 23 (23%) were mesocephalic, and 74 (74%) were brachycephalic. Statistical analysis proved that individuals with a dolichocephalic cranial shape have lower tentorial and occipital angles.

The results provide strong evidence proving that the lesser the tentorial and occipital angles, the easier the exposure of the anterior portion of the MTR during the PST approach. Furthermore, the tendency of the cranial shape to dolichocephaly seems to have the same practical value in choosing the approach. Therefore, it is easier to expose the anterior portion of the MTR in these individuals ³⁾

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³⁾

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