

Contralateral transcingulate approach

The contralateral [transcingulate approach](#) is a variation of the contralateral transcallosal approach for lesions located in the [cingulate gyrus](#) and deep white matter of the medial frontal lobe.

This approach positions the head with the midline horizontally, lesion on the upside, allowing gravity retraction of the dependent [frontal lobe](#). Bifrontal craniotomy and splitting of the interhemispheric fissure create a crossing trajectory from the contralateral fissure to the ipsilateral cingulate gyrus that maximizes lateral exposure.

Case series

2012

Eleven patients with vascular lesions were treated with the contralateral transcingulate approach (9 patients with [cavernous malformations](#) and 2 patients with [arteriovenous malformations](#)). Eight lesions were located on the left side, 5 in the cingulate gyrus, and 6 in the deep frontal lobe. The falx was cut in 5 patients to extend the crossing trajectory. All lesions were removed completely, with neurological morbidity in 1 patient caused by venous infarction.

Although similar to the contralateral transcallosal approach, the contralateral transcingulate approach accesses lesions outside the ventricle and has a steeper crossing trajectory. This approach requires no disruption of brain tissue with lesions on the cingulate surface and only a small incision in cingulate gyrus with lesions in the deep frontal lobe. The ipsilateral [pericallosal artery](#) and [callosomarginal artery](#) provide dependable landmarks for transcingulate dissection. The contralateral transcingulate approach offers an alternative medial approach to lesions near language and motor areas and avoids lateral transcortical approaches, awake speech mapping, and risk to eloquent cortex in the dominant hemisphere ¹⁾.

¹⁾

Davies J, Tawk RG, Lawton MT. The contralateral transcingulate approach: operative technique and results with vascular lesions. *Neurosurgery*. 2012 Sep;71(1 Suppl Operative):4-13; discussion 13-4. doi: 10.1227/NEU.0b013e318246a7f8. PubMed PMID: 22186844.

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