

# Basal ganglia tumor

Among brain tumours, those arising from the deep brain are rare. In many cases they are [low-grade astrocytomas](#). But [primitive neuroectodermal tumors](#), [ganglion cell tumors](#), [oligodendrogliomas](#), [lymphomas](#), and germinal neoplasms can also grow up from the [basal ganglia](#) and [thalamus](#).

## Differential diagnosis

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## Treatment

The surgical treatment of thalamic tumours and lesions in the basal ganglion area have been under debate due to their deep localization and adjacent critical structures. With the continuous development of neurosurgical [technology](#), this area is no longer a restricted surgical area. A study of Saito et al. demonstrated that patients with [thalamic high-grade glioma](#) without invasion into the [pyramidal tract](#) and [brainstem](#) can be considered candidates for surgical resection <sup>1)</sup>.

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Kadyrov et al. describe two cases of surgical treatment of well-circumscribed [basal ganglia](#) tumors. The choice of a neurosurgical [approach](#) to a deep tumor was based on the MR [tractography](#) data and depended on the course and dislocation extent of the [corticospinal tract](#). MR tractography provides information on the course and dislocation or destruction extent of the corticospinal tract running in the [internal capsule](#) and brainstem and clarifies the exact location of a tumor within the basal ganglia. This information promotes the choice of an optimal approach for radical resection of well-circumscribed tumor, leading to improvement in neurological symptoms and patient's quality of life <sup>2)</sup>.

## Thalamic tumor

[Thalamic tumor](#).

## Basal ganglia glioma

see [Basal ganglia glioma](#)

<sup>1)</sup>

Saito R, Kumabe T, Kanamori M, Sonoda Y, Tominaga T. Distant recurrences limit the survival of patients with thalamic high-grade gliomas after successful resection. *Neurosurg Rev*. 2017 Jul;40(3):469-477. doi: 10.1007/s10143-016-0804-x. Epub 2016 Dec 17. PMID: 27987035.

2)

Kadyrov SU, Konovalov AN, Pronin IN. [MR tractography in diagnosis and choice of a neurosurgical approach to basal ganglia tumors]. Zh Vopr Neurokhir Im N N Burdenko. 2018;82(1):78-85. doi: 10.17116/neiro201882178-85. Russian. PubMed PMID: 29543219.

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