Thalamic glioblastoma

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- High-Grade Thalamic Glioma: Case Report with Literature Review
- Bilateral thalamic glioblastoma presenting as parkinsonism: A case report

see also Pediatric bilateral thalamic glioblastoma.

Thalamic glioblastoma are considered a great challenge to neurosurgeons, and are unfavorable for microsurgical removal because of the proximity to critical structures, which limits access and reduces extent of resection.

Some studies, however, have reported subtotal resection (STR), followed by radiation therapy and chemotherapy in the management of these tumors [1) 2) 3) 4)].

Albeit, the survival benefits of such surgical interventions have not been proven yet [5)], and for many years, more conservative treatment paradigms have been advocated, including tissue diagnosis by biopsy followed by adjuvant therapy (radiation plus chemotherapy), as the treatment of choice in thalamic GBMs [6)].

However, the anatomy of the thalamus may allow for the possibility of surgery. The thalamus has a tetrahedron-like shape with three free surfaces; only the ventrolateral border approximates critical anatomical structures, including the internal capsule and subthalamic nucleus, and a surgical approach can be more safely made through the other surfaces [7) 8)],

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The overall survival of patients with thalamic glioblastoma is comparable to unresectable lobar supratentorial GBMs. Younger patients and those with good presenting functional status had improved survival. Midbrain involvement by the tumor is not a negative prognostic factor. Improved therapies are needed, and patients should be considered for early trial involvement and aggressive upfront therapy [9)].

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a patient presenting with progressive hemiparesis and decreased consciousness with a large thalamic GBM who underwent subtotal resection through a transsylvian approach. His clinical and neurologic condition improved after surgery and he survived nine months after surgery. This may propose that in selected cases, more aggressive microsurgery for debulking of tumors might have some impact in the final outcome. [10)].

Ranger et al. present the case of a 6-year-old girl with left arm osseous changes consistent with Ollier disease and a biopsy-proven thalamic glioblastoma multiforme. They then examine the co-occurrence of brain tumors in conjunction with a dyschondroplasia syndrome in children and adolescents to assess the presentation, treatment offered, and disease course of similar cases. Eight other such cases were identified, 6 in patients with Ollier disease (ranging in age from 7 to 18 years), and 2 with Maffucci syndrome (both in late adolescence). Including our own patient, 7 of the 9 cases of comorbid dyschondroplasia and intracranial malignancy occurred in girls. Some patients presented soon after the acute onset of symptoms, and others had a more subtle, protracted course over as many as 2 years. Some tumors were deemed resectable and others not. In only 1 instance was follow-up beyond 1 year reported [11].

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