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Radiosurgery for Glioblastoma

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Abstract

Glioblastoma (GBM) is infiltrative neoplasm with limited treatment options and poor overall survival. Stereotactic radiosurgery (SRS) allows spatially precise and conformal delivery of high doses of radiation. Salvage SRS for locally recurrent GBM was shown to improve patient survival and have more favorable safety profile than repeated surgical resection. Boost SRS after fractionated radiation therapy is sometimes attempted; however, Radiation Therapy Oncology Group 93-05 randomized clinical trial did not demonstrate benefits of upfront SRS that was administered before fractionated radiation. Administration of bevacizumab with SRS is associated with improved survival and can allow SRS dose escalation.

Keywords: Gamma knife radiosurgery; Glioblastoma; Prognosis; Stereotactic radiosurgery; Survival.

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