Antiangiogenic therapies in glioblastoma multiforme.

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Abstract
Glioblastoma multiforme (GBM) is the most common and lethal of adult gliomas. The prognosis for the great majority of patients with GBM is poor as almost all tumors recur following optimal surgical resection, radiation and standard chemotherapy, resulting in rapid disease-related death. The standard of care for recurrent GBM has not been clearly established. GBMs are highly vascularized brain tumors and growth has been shown to be angiogenesis dependent, thus stimulating interest in developing antiangiogenic therapeutic strategies. Antiangiogenic agents are the most promising novel agents in development for GBM but to date have not substantially changed overall survival. Future antiangiogenic strategies designed to overcome limitations of current antiangiogenic agents will likely involve the use of agent combinations that target pathways mediating resistance to antiangiogenic agents and tumor invasion.

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