

## PubMed

U.S. National Library of Medicine  
National Institutes of Health



Display Settings: Abstract

[J Clin Oncol](#). 2010 May 17. [Epub ahead of print]

# Lack of Efficacy of Bevacizumab Plus Irinotecan in Children With Recurrent Malignant Glioma and Diffuse Brainstem Glioma: A Pediatric Brain Tumor Consortium Study.

Gururangan S, Chi SN, Young Poussaint T, Onar-Thomas A, Gilbertson RJ, Vajapeyam S, Friedman HS, Packer RJ, Rood BN, Boyett JM, Kun LE.

Preston Robert Tisch Brain Tumor Center; Duke University Medical Center, Durham, NC; Dana-Farber Cancer Institute; Children's Hospital Boston, Boston, MA; St Jude Children's Research Hospital; Operations and Biostatistics Center for the Pediatric Brain Tumor Consortium, Memphis, TN; and the Children's National Medical Center, Washington, DC.

### Abstract

**PURPOSE** A phase II study of bevacizumab (BVZ) plus irinotecan (CPT-11) was conducted in children with recurrent malignant glioma (MG) and intrinsic brainstem glioma (BSG). **PATIENTS AND METHODS** Eligible patients received two doses of BVZ intravenously (10 mg/kg) 2 weeks apart and then BVZ plus CPT-11 every 2 weeks until progressive disease, unacceptable toxicity, or a maximum of 2 years of therapy. Correlative studies included diffusion weighted and T1 dynamic contrast-enhanced permeability imaging, BVZ pharmacokinetics, and estimation of vascular endothelial growth factor receptor 2 (VEGFR-2) phosphorylation in peripheral blood mononuclear cells (PBMC) after single-agent BVZ. **Results** Thirty-one evaluable patients received a median of two courses of BVZ plus CPT-11 (range, 1 to 19). No sustained responses were observed in either stratum. Median time to progression for all 34 eligible patients enrolled was 127 days for MG and 71 days for BSG. Progression-free survival rates at 6 months were 41.8% and 9.7% for MG and BSG, respectively. Toxicities related to BVZ included grade 1 to 3 fatigue in seven patients, grade 1 to 2 hypertension in seven patients, grade 1 CNS hemorrhage in four patients, and grade 4 CNS ischemia in two patients. The mean diffusion ratio decreased after two doses of BVZ in patients with MG only. Vascular permeability parameters did not change significantly after therapy in either stratum. Inhibition of VEGFR-2 phosphorylation in PBMC was detected in eight of 11 patients after BVZ exposure. **CONCLUSION** BVZ plus CPT-11 was well-tolerated but had minimal efficacy in children with recurrent malignant glioma and brainstem glioma.

PMID: 20479404 [PubMed - as supplied by publisher]

[LinkOut](#) - more resources

You are here: [NCBI](#) > [Literature](#) > [PubMed](#)

[Write to the Help Desk](#)