

PubMed

Search

Display Settings: Abstract[J Neurooncol.](#) 2011 Nov 11. [Epub ahead of print]

Relation between bevacizumab dose intensity and high-grade glioma survival: a retrospective study in two large cohorts.

[Lorgis V](#), [Maura G](#), [Coppa G](#), [Hassani K](#), [Taillandier L](#), [Chauffert B](#), [Apetoh L](#), [Ladoire S](#), [Ghiringhelli F](#).

Department of Medical Oncology, Georges Francois Leclerc Cancer Center, 1 rue du professeur Marion, Dijon, 21000, France.

Abstract

Bevacizumab is one of the rare drugs that could improve high-grade glioma outcome after failure of chemoradiotherapy. However, to date, there is no biomarker predictive for efficacy of bevacizumab therapy in terms of survival improvement for patients with high-grade glioma. We performed a retrospective analysis of clinical factors associated with patient survival using a training cohort of 110 consecutive patients treated with bevacizumab for recurrent high-grade glioma and an independent validation cohort of 109 patients. In the training cohort, 110 consecutive patients received bevacizumab-based therapy. The number of chemotherapy cycles delivered was 1,411. Median follow-up was 12 months. Thirty-four patients (31%) had objective partial response and 24% had stable disease on magnetic resonance imaging evaluation. Median progression-free survival (PFS) and overall survival (OS) were 4.3 and 9.2 months, respectively. On univariate analysis, among classical prognosis factors, only Karnofsky status $\geq 70\%$ was associated with improved outcome. Surprisingly, patients with low bevacizumab dose intensity (< 5 mg/kg/week) had better PFS (12 vs. 2 months, $P < 0.0001$) and OS (16 vs. 6 months, $P = 0.0002$). On multivariate analysis, low bevacizumab dose intensity was the most significant independent prognostic factor of survival. Analysis of the validation cohort yielded similar results, externally validating this observation. This large retrospective study using two independent cohorts of high-grade glioma suggests that the currently recommended dosage of bevacizumab (5 mg/kg/week) is not optimal. Further prospective randomized trials using lower dosages are warranted.

PMID: 22076449 [PubMed - as supplied by publisher]

[+ LinkOut - more resources](#)