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1: [J Neurooncol.](#) 2009 Feb;91(3):359-67. Epub 2008 Oct 25.



## **Salvage chemotherapy with bevacizumab for recurrent alkylator-refractory anaplastic astrocytoma.**

[Chamberlain MC](#), [Johnston S](#).

Department of Neurology and Neurological Surgery, University of Washington/Fred Hutchinson Cancer Center, Seattle Cancer Care Alliance, 825 Eastlake Ave E, Seattle, WA 98109-102, USA. [chambemc@u.washington.edu](mailto:chambemc@u.washington.edu)

A retrospective study of bevacizumab only in adults with recurrent temozolomide (TMZ)-refractory anaplastic astrocytoma (AA) with a primary objective of determining progression free survival (PFS). There is no standard therapy for alkylator-resistant AA and hence a need exists for new therapies. Twenty-five patients (15 men; 10 women) ages 26-63 (median 50), with radiographically recurrent AA were treated. All patients had previously been treated with surgery, involved-field radiotherapy, and alkylator-based chemotherapy. Fourteen patients underwent repeat surgery. Patients were treated at second recurrence with bevacizumab (10 mg/kg), once every 2 weeks (defined as a single cycle). Neurological evaluation was performed every 2 weeks and neuroradiographic assessment following the initial two cycles of bevacizumab and subsequently after every four cycles of bevacizumab. All patients were evaluable for toxicity and response. A total of 360 cycles of bevacizumab (median 14 cycles; range 2-40) was administered. Bevacizumab-related toxicity included fatigue (14 patients; 2 grade 3), leukopenia (7; 1 grade 3), deep vein thrombosis (5; 2 grade 3), hypertension (5; 1 grade 3), anemia (4; 0 grade 3) and wound dehiscence (1; 1 grade 3). Sixteen patients (64%) demonstrated a partial radiographic response, 2 (8.0%) stable disease and 7 (28%) progressive disease following two cycles of bevacizumab. Time to tumor progression ranged from 1 to 20 months (median: 7). Survival ranged from 2 to 23 months (median: 9.0). 6-month and 12-month PFS were 60 and 20%, respectively. Bevacizumab demonstrated efficacy and acceptable toxicity in this cohort of adults with recurrent alkylator refractory AA.

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