Bevacizumab for recurrent alkylator-refractory anaplastic oligodendroglioma.

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BACKGROUND: A retrospective evaluation of single agent bevacizumab was carried out in adults with recurrent alkylator-refractory 1p19q codeleted anaplastic oligodendrogliomas (AO) with an objective of determining progression-free survival (PFS). There is no standard therapy for alkylator-resistant AO, and hence a need exists for new therapies. METHODS: Twenty-two patients aged 24 to 60 years with recurrent AO were treated. All patients had previously been treated with surgery, radiotherapy, adjuvant chemotherapy (temozolomide, 17; carmustine wafers, 4; carmustine, 1), and 1 salvage regimen (procarbazine, lomustine, and vincristine, 15; temozolomide, 6; carmustine wafers, 1). Eleven patients underwent repeat surgery. Patients were treated at second recurrence with bevacizumab, once every 2 weeks, defined as a single cycle. Neurological evaluation was performed every 2 weeks, and neuroradiographic assessment was made after the initial 2 cycles of bevacizumab and subsequently after every 4 cycles of bevacizumab. RESULTS: A total of 391 cycles of bevacizumab (median, 14.5 cycles; range, 2-39 cycles) were administered. Bevacizumab-related toxicity included fatigue (14 patients; 4 grade 3), leukopenia (9; 1 grade 3), anemia (5; 0 grade 3), hypertension (5; 1 grade 3), deep vein thrombosis (4; 1 grade 3), and wound dehiscence (2; 1 grade 3). Fifteen (68%) patients demonstrated a partial radiographic response, 1 (5.0%) demonstrated stable disease, and 6 (27%) demonstrated progressive disease after 2 cycles of bevacizumab. Time to tumor progression ranged from 1 to 18 months (median, 6.75 months). Survival ranged from 3 to 19 months (median, 8.5 months). Six-month and 12-month PFS were 68% and 23%, respectively. CONCLUSIONS: Bevacizumab demonstrated efficacy and acceptable toxicity in this cohort of adults with recurrent 1p19q codeleted alkylator-refractory AO.

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