IT-13. IPILIMUMAB FOR RECURRENT HIGH-GRADE GLIOMA: A SINGLE-INSTITUTION CASE SERIES
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BACKGROUND: The anti-CTLA-4 monoclonal antibody ipilimumab is a potent immune modulator. However, experience treating high-grade glioma with ipilimumab is limited. METHODS: In this single-institution consecutive case series, we identified 7 patients with recurrent grade 3 (one patient) and grade 4 (6 patients) glioma who were treated with ipilimumab off-label between June 2012 and April 2014. RESULTS: Age at treatment: 39 to 66 years. Number of infusions: 1-6. Number of recurrences prior to starting ipilimumab: 1-5. Five patients received additional treatment in conjunction with ipilimumab, including 4 who received bevacizumab. Time to progression for the 6 glioblastoma patients: 1.1 mo, 1.2 mo, 2.7 mo, 2.8 mo, 6 mo, 19.5 mo. One patient (with anaplastic astrocytoma) is recurrence-free 3.2 months from treatment initiation. This patient, who has not received concurrent therapy, has had stable disease by RANO criteria, with improvement in FLAIR abnormality, steroid requirement, and functional status. Three patients have died, with survival of 1.3 mo, 2.2 mo, and 5.3 mo. Four patients are still alive at 3.2 mo, 3.7 mo, 13.3 mo, and 23.3 mo follow-up. One patient underwent repeat resection 3 months following treatment initiation, but no evidence of progressive disease was found. Increased granzyme B expression, suggestive of an immune response, was found on immunohistochemistry. Autoimmune-related adverse effects were grade 2 at maximum, and manageable with steroids. CONCLUSION: This case series highlights the potential use of ipilimumab for patients with recurrent high-grade glioma. Though optimal use has yet to be defined, a subset of patients do appear to benefit from treatment. Cases of radiographic response, clinical improvement, and evidence of immune response by pathology have all been seen. Some patients do well even beyond initial progression, a phenomenon that has been observed with other immunotherapies.