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NO-40. OPTIC NEUROPATHY IN GLIOMA PATIENTS AFTER RECEIVING RADIOTHERAPY AND BEVACIZUMAB: RISK FACTORS AND RELATED QUALITY OF LIFE ISSUES

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Focal beam radiation in combination with temozolomide is the standard treatment for malignant gliomas as well as nonresectable, high-risk WHO grade II gliomas. Bevacizumab treatment at time of recurrence is stipulated to increase the patient's survival. However, optic nerve neuropathy is one of the serious complications of radiotherapy, and there are very few articles that discuss the relationships between bevacizumab and optic nerve neuropathy in the patients who develop bilateral optic nerve neuropathy during or after their treatment. The purpose of this study is to identify cases of bilateral optic nerve neuropathy in patients that received focal radiation and bevacizumab and to delineate possible risk factors and related quality of life issues. The data collection protocol is approved by Institutional Research Board at University of California, Irvine. Two patients with bilateral optic neuropathy after receiving focal beam radiation and bevacizumab were identified. Both patients were started on bevacizumab due to their tumor progression 2 months after completing radiation therapy, and the median time from the end of radiation to the onset of visual decline was 10.5 months. Case #1 is a 70-year-old Hispanic man with a nonresectable, bifrontal LGO who developed bilateral optic nerve neuropathy 7 months after starting on bevacizumab. Case #2 is an 82-year-old Asian man with the diagnosis of left frontal lobe GBM who developed bilateral optic nerve neuropathy 13 months after the initiation of bevacizumab. Their mean radiation dose to the optic chiasm was 49.64 Gy. Focal beam radiation, as well as bevacizumab, plays an important role in the treatment of gliomas. However, it is imperative for patients with the diagnosis of frontal tumors who were started on bevacizumab shortly after radiation to have routine follow-up with neuro-ophthalmologist consultation, home health safety evaluation, clinical social worker involvement, and periodical MRI of the orbits if their symptoms warrants.