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Abstracts

AT-45. GAMMA KNIFE RADIOSURGERY FOR RECURRENT HIGH GRADE GLIOMAS

Selcuk Peker[1], Ipek Arslan Kabalay[2], Evrim Tezcanli[1], Meltem Yilmaz[1], and Meric Sengoz[1]; [1]Acibadem University School of Medicine, Istanbul, Turkey; [2]Gaziosmanpasa University School of Medicine, Tokat, Turkey

OBJECT: In this study, we aimed to review our experience with Gamma Knife radiosurgery (GKRS) for the treatment of recurrent high grade glial tumors. METHODS: We retrospectively reviewed 39 patients who were treated for focally recurrent high grade gliomas with GKRS at our institution between May 2006 and August 2013. Twenty-four males and 15 females with a median age of 51 years (range 19-80 years) were included in the study. Histopathology included 31(79%) glioblastomas (GBM), 5 (13%) anaplastic astrocytomas, 2 (5%) anaplastic oligoastrocytomas and 1 (3%) anaplastic oligodendroglioma. All patients underwent initial surgery followed by radiotherapy, 34 (87%) patients received chemotherapy before GK treatment. The median tumour volume was 4,90 cc (range:0.30-26.60 cc) and the median marginal dose was 15 Gy (range:12-18 Gy). RESULTS: Median overall survival for the whole cohort from the day of GKRS was 18 months (range: 2–78 months). One and 2 years survival rates were %70 and %55, respectively. For GBM patients, the median overall survival, 1 and 2 years survival rates were 17 months (range: 2– 46 months), 61% and 23%, respectively. Patients with WHO grade III gliomas had a median overall survival, 1 year and 2 years survival rates of 27 months (range: 5– 78 months), 75% and 50%, respectively. CONCLUSION: In the highly selected patients with focally recurrent high grade glial tumors, GKRS can contribute to prolonged survival rates.