Radiotherapy with concurrent or sequential temozolomide in elderly patients with glioblastoma multiforme.


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Abstract

Objective: The objective of this article was to evaluate therapeutic outcomes of elderly patients with glioblastoma multiforme (GBM) treated by surgery followed by combined modality therapy and compare achievable outcomes to those of a younger age population. Methods and Materials: Seventy-eight adult patients with histologically confirmed grade IV astrocytoma were treated at King Hussein Cancer Center (Amman, Jordan) between September 2004 and December 2008. Records were retrospectively reviewed and included 55 males and 23 females between 19 and 78 years of age (median age 50 years). This case series included 20 patients aged 60 years or older. All patients underwent craniotomy followed radiotherapy and concurrent or sequential temozolomide. The follow-up ranged from 1 to 56 months (median 9.4 months). Results: The median survival for the whole cohort was 13.8 months. The median survival for patients less than 60 years was 14.3 months and for patients 60 years or older was 12.3 months (P = 0.19). Among elderly patients, radical surgical resection (P = 0.002), concurrent delivery of chemoradiation (0.041) and radiotherapy dose ≥5400 cGy (P = 0.0001) conferred statistically significant improvements in overall survival. Conclusion: Management of GBM in elderly patients should include maximal surgical resection followed by radiotherapy and temozolomide whenever medically feasible. Outcomes comparable to those obtained in younger age groups can be expected. Our results indicate that concurrent chemoradiation is superior to sequential chemoradiation in these patients.

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