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BACKGROUND:: Glioblastoma (GBM) is the most common malignant primary brain tumor, and approximately 50% of cases occur in patients aged >/=65 years. However, to the authors' knowledge, there is no accepted standard treatment for elderly GBM patients, and specific prognostic factors in the elderly GBM population have not been systematically studied to date. METHODS:: The Memorial Sloan-Kettering Cancer Center institutional database was used to identify patients with histologically confirmed GBM who were aged >/=65 years at the time of diagnosis. RESULTS:: Three hundred ninety-four GBM patients with a median age of 71.9 years (59% of whom were men) were included. Approximately 18% of patients underwent biopsy, whereas 82% underwent tumor resection; 81% received radiotherapy (RT), and 43% received adjuvant chemotherapy. The median overall survival was 8.6 months; at the time of last follow-up, 90% of patients had died, and the median follow-up of the 39 surviving patients was 12 months. In a multivariate analysis, younger age, better Karnofsky performance status (KPS), single tumor, and surgical resection were found to be independent predictors of survival. Comparing 103 patients who received adjuvant chemotherapy with 48 who were only followed after RT, there was a 55% decrease in the risk of death (hazards ratio, 0.45; 95% confidence interval, 0.30-0.66 [P < .0001]) after adjusting for age, KPS, extent of surgical resection, and number of lesions. CONCLUSIONS:: Similar to studies in younger GBM patients, advancing age, KPS, and extent of tumor resection were found to be independent prognostic factors in the current study. Although survival is inferior in older GBM patients, age alone should not disqualify patients from aggressive therapy with surgical resection, RT, and chemotherapy. Cancer 2009. (c) 2009 American Cancer Society.

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