

Glioblastoma Multiforme, Long-term Survival (Single Institution Experience)

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Abstract

Purpose: Patients with glioblastoma multiforme (GBM) have very poor prognosis; the median survival with the best available treatment is only 12 months. The survival rate has changed little in the past 20 years. This clinico-epidemiological study was prompted to identify specific parameters that might be associated with GBM patients who have achieved an unusual overall survival of >36 months post diagnosis.

Patients and Methods: In this clinicoepidemiological study, the frequency of long term glioblastoma multiforme (GBM) survivors (LTGBMSs) was determined in a population-based study. All patients diagnosed with GBM and referred to Kasr El Aini Center of Radiation Oncology from January 1995 till December 2002 were included in the study. Patients were followed up, and LTGBMSs were defined as GBM patients surviving 3 years or more after diagnosis. Patients were compared in terms of age, sex, and year of diagnosis with standard survivors. Analysis of clinicoepidemiological factors related to survival issues was attempted trying to identify prognostic factors associated with prolonged survival.

Results: One hundred and forty three GBMs patients were diagnosed in the study period; 7 (4.66%) of these patients survived 3 years or more. LTGBMSs (mean age, 38.1 years) were significantly younger when compared with all GBM patients (mean age, 52 years). LTGBMSs had a higher Karnofsky Performance Status score at diagnosis. LTGBMSs were much more likely to have had a gross total resection and adjuvant chemotherapy than the standard GBM patients.

Conclusion: Conventionally treated GBM patients in an unselected population have a very small chance of long-term survival. Aggressive surgical resection as well as adjuvant chemotherapy in addition to sophisticated radiation therapy techniques might contribute to better survival outcome in such dismal disease, particularly in selected patients with young age, good performance status and following near or total resection.