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### Glioblastoma multiforme: an advanced analysis of 153 patients and review of the literature

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lioblastoma multiforme (GBM) is an aggressive primary tumor with frequent recurrences that leaves patients with a short J survival time and a low quality of life. The aim of this study was to review prognostic factors in patients with glioblastoma multiforme. The focus of this retrospective study was a group of 153 patients with supratentorial GBM tumors, who were admitted in a tertiary-care referral academic center from 2005 to 2013. Factors associated with survival and local recurrence were assessed using the hazard ratio (HR) function of Cox proportional hazards regression and neural network analysis. Of the 153 patients, 99 patients (64.7%) were male. The average age of patients was 55.69±15.10 years. The median overall survival (OS) and progression-free survival (PFS) were 14.0 and 7.10 months, respectively. In the multivariate analysis, age (HR=2.939, P<0.001), operative method (HR=7.416, P<0.001), temozolomide (TMZ, HR=11.723, P<0.001), lomustine (CCNU, HR=8.139, P<0.001), occipital lobe involvement (HR=3.088, P<0.001) and Karnofsky Performance Status (KPS, HR=4.831, P<0.001) were shown to be significantly associated with a higher OS rate. Furthermore, higher KPS (HR=7.292, P<0.001), operative method (HR=0.493, P=0.005), the use of CCNU (HR=2.047, P=0.003) and resection vs. chemotherapy (HR=0.171, P<0.001) were the significant factors associated with local recurrence of tumor. Our findings suggest that the use of CCNU and TMZ, operative method and higher KPS readings are associated with both higher survival and lower local recurrence rates.



#### **Biography**

Mohammad Sadegh Nikdad is currently working as a Professor in the Department of Neurosurgery, Tehran University of Medical Sciences, Iran. His major area of interest includes Neurology, Neurosurgery, etc. He has published several original articles in the reputed and peer reviewed journals and also participated into several scientific meetings

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