Antiepileptic treatment and survival in newly diagnosed glioblastoma patients: Retrospective multicentre study in 285 Italian patients.


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Glioblastoma multiforme (GBM) has a dismal prognosis even with the best available treatment. Different studies have suggested a possible impact of antiepileptic drugs (AED) on survival in patients with GBM. A recent pooled analysis of prospective clinical trials in newly diagnosed GBM found no significant survival benefit in GBM patients treated with AED. We performed a retrospective study on adult patients with GBM in order to evaluate the impact of AED therapy on overall survival (OS), after adjusting for known prognostic factor (age, extent of surgery, Karnofsky performance status, radiochemotherapy). A total of 285 patients were analyzed. Of them 144 received a non-enzyme-inducing (NEIAED) and 95 an enzyme-inducing AED (EIAED). At univariate analysis the OS of patients receiving AED was not significantly different from that of patients not receiving an AED (HR 0.98, 95%CI 0.69-1.4, p = 0.925), moreover OS was not significantly different between patients receiving EIAED or NEIAED. At multivariate analysis a trend to more prolonged survival (HR 0.8, 95% CI 0.59-1.08, p = 0.15) was detected in patients treated with NEIAED. The question whether treatment with AED may increase OS in GBM patients remains unanswered and randomized extremely large controlled clinical trial would be necessary to elucidate the possible impact of AED on prognosis. In the meantime the use of AED in GBM patients, based on the presumed potential antitumour activity, is not recommended.

KEYWORDS: Antiepileptic drugs; Epilepsy; Glioblastoma; Survival

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