Benefit and outcome of using temozolomide-based chemoradiotherapy followed by temozolomide alone for glioblastoma in clinical practice.

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Abstract

PURPOSE: Temozolomide (TEM), an oral alkylating agent, has shown promising activity in the last 10 years in the treatment of glioblastoma multiforme (GBM). Our goal was to show the benefit of concomitant therapy involving 3D conformal radiotherapy and temozolomide in clinical practice.

METHODS: This was a retrospective/prospective study and included a total of 113 patients with GBM diagnosis. Forty-seven patients received postoperative radiotherapy and 66 received concomitant temozolomide plus 3D conformal radiotherapy.

RESULTS: The mean overall survival of patients who received postoperative radiotherapy alone was 9.93±6.475 months, compared to statistically longer overall survival in the group of patients who received radiotherapy plus temozolomide (13.89±8.049 months) (p=0.006). The latter group was divided into two subgroups, one consisting of patients who received 6 complete cycles of temozolomide, and a second with patients who received incomplete treatment. Statistically significant longer overall survival was registered in the first subgroup compared to the second (p=0.006).

CONCLUSION: The concomitant usage of temozolomide and radiotherapy was beneficial, and statistically significant difference among groups and subgroups was observed regarding overall survival.

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