

ABSTRACT

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Efficacy of Chemotherapy Plus Bevacizumab in Recurrent Glioblastoma Multiform: A Real-life Study.

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BACKGROUND/AIM: Bevacizumab and chemotherapy are used in glioblastoma multiforme (GBM) relapse. However, the choice of chemotherapeutic agent remains an open question and this study aimed to evaluate the efficacy and safety of different combinations.

PATIENTS AND METHODS: Between June 2005 and August 2020, all patients treated with chemotherapy plus bevacizumab (BVZ) for recurrent glioblastoma in the Georges-François Leclerc Cancer Center, Dijon, France were included in this retrospective comparative study. The primary objective was progression-free survival (PFS) and as secondary objectives, overall survival (OS), disease control rate (DCR), and safety were investigated. Factors associated with response were also analyzed.

RESULTS: A total of 160 patients were screened: 100 received fotemustine plus BVZ (62%) and 62 (38%) received another cytotoxic agent plus BVZ: 35 (22%) irinotecan (IRI), 18 (11%) temozolomide (TEM), and 7 (4%) lomustine (LOM). In the whole population, median PFS was 4.47 months, median OS was 9 months, and 3-month DCR was 51%. Regarding survival according to treatment, median OS was significantly lower in the fotemustine group compared to that in other cytotoxic agents: 7.3 vs. 19.9 months. In the fotemustine group, steroids use at baseline and low Karnofsky performance status were associated with poor median OS. Grade 3-4 adverse events were found in 21.9%, with no difference between groups, but 7 patients had grade 5 adverse events in the fotemustine group.

CONCLUSION: Using real-life data, this study showed lower efficacy of fotemustine and bevacizumab, as compared to IRI or TEM or LOM-BVZ combinations.

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