ABSTRACT

Anticancer Res. 2022 Dec 1, 2022;42(12):6091-6098. doi: 10.21873/anticanres.16121.

Clinical Benefit of Bevacizumab and Irinotecan (BEV+IRI) in Patients With Relapsed/Refractory Glioblastoma (r/rGBM) and its Potential Predictors.

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BACKGROUND/AIM: Bevacizumab-containing chemotherapy constitutes an important salvage treatment for recurrent/refractory glioblastoma(r/rGBM).
PATIENTS AND METHODS: We retrospectively collected the data of r/rGBM patients treated with the combination of bevacizumab and irinotecan (BEV+IRI) as their salvage treatment from July 2013 and December 2021 in Konkuk Medical Center of Korea. Patients with available results from molecular diagnostic tests were eligible, and markers of interest were examined including the presence of MGMT methylation, IDH1/2 mutation, or 1p/19q co-deletion. Efficacy of BEV+IRI and its potential biomarker was explored.
RESULTS: Among 21 patients, 38.1% demonstrated European Cooperative Oncology Group-Performance scale (ECOG-PS) ≥3. The majority (71.4%) received BEV+IRI as their second-line chemotherapies, and the median dose was 5 (range=1-25). Objective response rate (ORR) was 33.3% and disease-control rate (DCR) was 85.7%. Irrespective of objective response, early clinical response was achieved in 14(66.7%) patients. During the median follow-up of 16.4 months for survivors, median progression-free survival (PFS) and overall survival (OS) were 3.6 and 6.8 months, respectively. ECOG PS≥3 and TP53 loss were independent predictors of an unfavorable OS, while prompt clinical improvement could predict favorable OS. Any molecular aberration was associated with OS or PFS in the study.
CONCLUSION: Salvage BEV+IRI treatment in r/rGBM conferred comparable clinical benefit. ECOG PS ≥3, TP53 loss, and lack of prompt clinical improvement after the treatment were significantly associated with an unfavorable OS.

DOI: 10.21873/anticanres.16121
PMID: 36456153 [Indexed for MEDLINE]