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Abstracts

ATCT-08. THE IMPACT OF EXTENDED ADJUVANT TEMOZOLOMIDE IN NEWLY-DIAGNOSED GLIOBLASTOMA: A SECONDARY ANALYSIS OF EORTC AND NRG ONCOLOGY/RTOG

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BACKGROUND: Following maximal safe resection, radiation (RT) with concurrent and 6 cycles (C) of adjuvant temozolomide (TMZ) [Stupp NEJM 2005] has been established as standard of care for newly-diagnosed glioblastoma (GBM). This regimen has been adopted with variations, including extending TMZ beyond 6 cycles. The optimal duration of maintenance therapy remains a matter of debate. OBJECTIVES: Compare outcomes of patients who completed 6C of TMZ and discontinued treatment to those of patients who continued TMZ >6C. METHODOLOGY: We performed a pooled analysis of 4 randomized trials (EORTC/NCIC 26981-CE.3; EORTC26071-CENTRIC; EMD-CORE; RTOG 0525-Intergroup). All patients received the standard of care (TMZ/RT with TMZ). All patients who completed TMZ 6C and had not progressed within 28 days were included. Based on local practice and the discretion of the investigator TMZ could be continued for up to 12C. Patients were grouped into those who completed 6C TMZ and those who continued >6C; progression-free and overall survival were analyzed, adjusted by age, performance status, resection extent, and MGMT status. Exploratory analyses with and without MGMT data imputation were performed at 5% significance. RESULTS: Independent of evaluated prognostic factors, treatment with >6C TMZ was significantly associated with improved PFS [HR 0.77 (0.61-0.97), $p = 0.03$]. This effect was more pronounced in patients with methylated MGMT [HR 0.64 (0.47-0.88), $p < 0.01$]. However, OS was not affected by the number of TMZ cycles, including the MGMT methylated subgroup ($p = 0.99$). Prognostic factors between 6C vs >6C groups were well-balanced, except MGMT methylation status; methylated status was less frequent in patients receiving >6C (39% vs 62%). Prognostic factors including age, MGMT methylation, extent of resection, and performance status had an expected impact on outcomes. CONCLUSION: Increasing the number of cycles of TMZ beyond 6 months is not shown to increase OS. PFS was improved, more so in patients with MGMT-methylated tumors.