

ABSTRACT

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Chloroquine Supplementation for the Treatment of Glioblastoma: A Meta-analysis of Randomized Controlled Studies.

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INTRODUCTION: Chloroquine supplementation may show some potential in improving the efficacy for glioblastoma, and this meta-analysis aimed to identify the efficacy of chloroquine supplementation for patients with glioblastoma.

METHODS: Several databases including PubMed, Embase, Web of Science, EBSCO, and Cochrane Library databases have been systematically searched through August 2022, and we included randomized controlled trials assessing the efficacy of chloroquine supplementation for glioblastoma. This meta-analysis was performed using the random-effect model or fixed-effect model based on the heterogeneity.

RESULTS: Four randomized controlled trials were finally included in this meta-analysis. In comparison with control group for glioblastoma, chloroquine supplementation was associated with substantially decreased mortality (odd ratio [OR], 0.17; 95% confidence interval [CI], 0.06-0.53; $P = 0.002$), improved survival time (mean difference, 15.63; 95% CI, 2.27-28.99; $P = 0.02$), and remission (OR, 15.63; 95% CI, 2.27-28.99; $P = 0.02$), but unraveled no obvious impact on the incidence of adverse events (OR, 3.27; 95% CI, 0.29-36.44; $P = 0.34$) or seizure (OR, 2.57; 95% CI, 0.05-127.68; $P = 0.64$).

CONCLUSIONS: Chloroquine supplementation may be effective to improve the treatment efficacy for glioblastoma.

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