



AAN 73st ANNUAL MEETING ABSTRACT

Abstract Title: A Retrospective Cohort Study of Medical Cannabis Treatment in Patients with Glioblastoma Multiforme

Objective: To evaluate the effect of medical cannabis (MC) on survival rates, quality of life, and adverse effects in patients with pathology-confirmed glioblastoma multiforme.

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Background: MC is becoming increasingly available to patients battling cancer, but additional evidence is required for proper treatment plan formulation. This retrospective cohort chart review investigated the role of MC in patients with glioblastoma multiforme, a rare, terminal, and aggressive malignancy.

Design/Methods: Between March 2016 to October 2019, 48 patients with pathology-confirmed glioblastoma multiforme utilized New York State MC. Survival and quality of life outcomes were compared to a matched control group, including pathology grading and tumor genotype, who were not exposed to MC. All patients were followed in an outpatient neuro-oncology setting in New York State.

Results: No significance was observed in the median survival time between patients with glioblastoma multiforme utilizing MC (24.7 months) and matched controls (22.4 months, $p=0.862$). Five year survival rates supported these findings (MC: 28.6%, control: 31.6%). Average MC exposure was 9.34 ± 8.50 months in 48 patients (median age 51 years, 58% female, 30% reporting previous cannabis use). Patient-reported improvements were most notable in sleep (70%), overall quality of life (65%), and anxiety (52%). Adverse effects of MC were reported in 26% and were mostly mild in nature. The utilization of Type II chemovar (balanced tetrahydrocannabinol to cannabidiol ratio) was associated with increased quality of life measures, including improved sleep and anxiety, while minimizing AE reporting.

Conclusions: There is no association between improved survival of glioblastoma multiforme and MC treatment. MC may be considered as complementary therapy for the improvement of QOL measures that may be effected during the course of standard glioblastoma multiforme care, including sleep and anxiety. Randomized, placebo-controlled studies are required to further investigate these associations, with an emphasis on improving patient quality of life and survival outcomes for glioblastoma multiforme .

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