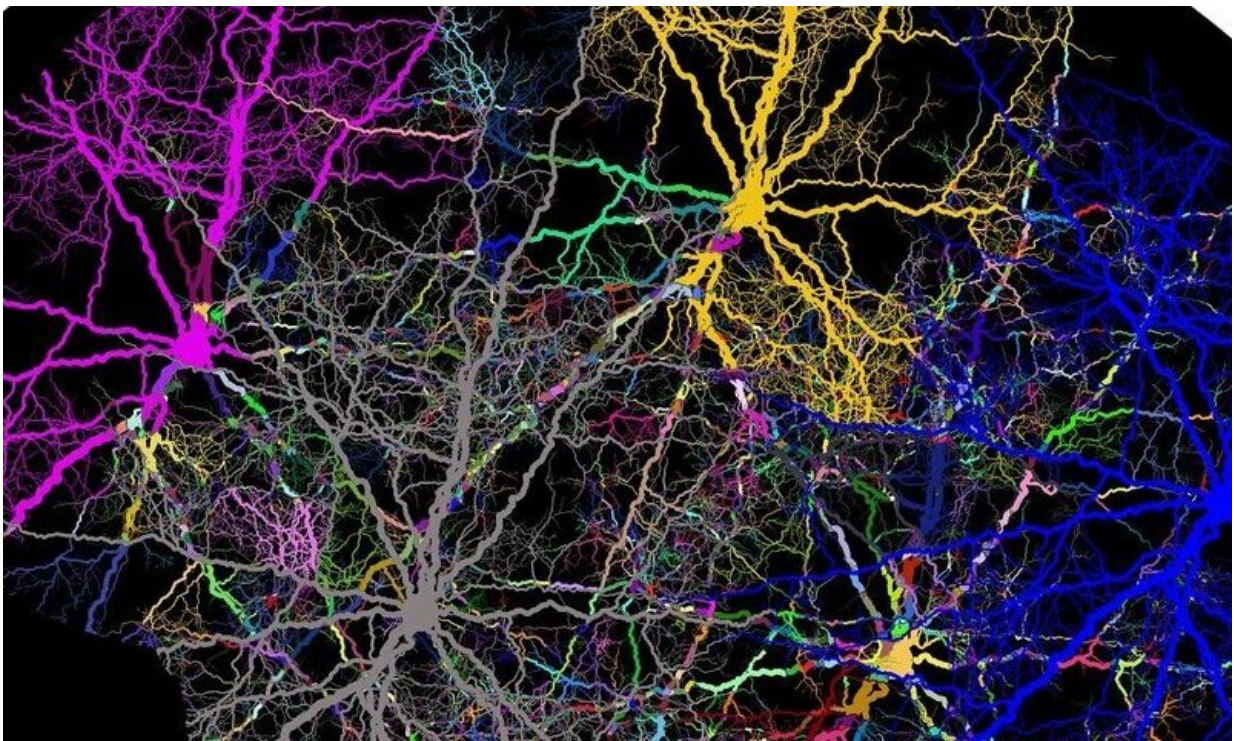


# Clinical trial: Combination treatment extends progression-free survival in brain cancer

April 10 2023, by Melissa Rohman

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Repeat radiation therapy combined with the monoclonal antibody drug bevacizumab extended progression-free survival in patients with recurrent glioblastoma, according to findings from a recent clinical trial

published in the *Journal of Clinical Oncology*.

Jeffrey Raizer, MD, adjunct professor in the Ken and Ruth Davee Department of Neurology's Division of Neuro-Oncology, was a co-author of the study.

Glioblastoma accounts for nearly half of all primary malignant brain tumors. According to the National Brain Tumor Society, the five-year survival rate for [glioblastoma patients](#) is 6.8 percent, and the average length of survival for glioblastoma patients is eight months.

Unfortunately, most patients with glioblastoma will experience recurrence, and while the timing of recurrence varies between patients, most will recur on average eight to 12 months after initial diagnosis.

In addition to chemotherapy and other therapeutic interventions, most patients with glioblastoma receive [radiation therapy](#) at the time of diagnosis, except in some cases for those patients who are 70 years and older. In the case of recurrence, treatment options are limited and better treatments are needed. One option is for patients to receive repeat radiation, also known as reirradiation.

In the current phase II clinical trial, 170 individuals with [recurrent glioblastoma](#) greater or equal to six months after completion of initial radiation and chemotherapy were enrolled. Patients were then randomly assigned to receive reirradiation and bevacizumab every two weeks or bevacizumab alone until tumor progression was detected.

"Bevacizumab is an anti-angiogenic medication, designed to prevent blood vessel growth in tumors. It may also limit the degree of radiation-induced injury when radiation is repeated, such as in this study," Raizer said.

Overall, average survival time was numerically, but not significantly, longer in the combined treatment group versus the bevacizumab-only group; 10.1 months versus 9.7 months, respectively.

However, average progression-free survival was 7.1 months in the combination treatment group versus 3.8 months in the bevacizumab group, and the six-month [progression-free survival](#) rate improved from 29.1 percent in the [bevacizumab](#) group to 54.3 percent in the combination treatment group.

"While the primary outcome was not met, researchers will continue to look for strategies in treating recurrent glioblastoma, either newer drug therapies alone or in combination with radiation when there is a rationale for the combination. While this study used a specific radiation dose and schedule, looking at other ways of using [radiation](#), or dosing schemes, as part of the treatment for recurrent or progressive [glioblastoma](#) could be helpful in the future," Raizer said.

**More information:** Christina I. Tsien et al, NRG Oncology/RTOG1205: A Randomized Phase II Trial of Concurrent Bevacizumab and Reirradiation Versus Bevacizumab Alone as Treatment for Recurrent Glioblastoma, *Journal of Clinical Oncology* (2022). [DOI: 10.1200/JCO.22.00164](https://doi.org/10.1200/JCO.22.00164)

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