New Cancer Treatment Improves Survival for Glioblastoma Patients

A new cancer treatment, tumor-treating fields, may improve survival for glioblastoma patients when used in addition to chemotherapy.

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January 16, 2018- Among patients with glioblastoma, the addition of tumor-treating fields, or TTFields, to the typical treatment regimen was found to improve survival, as shown in a recent clinical trial.

Roger Stupp, MD and colleagues published their findings in the December 19,2017 issue of *JAMA.*

Glioblastoma, an aggressive brain tumor, has traditionally been treated with surgery, radiation, and chemotherapy, but treatment has been minimally effective. Since glioblastoma grows rapidly, patient survival is short; only 25% of patients are alive 2 years after their diagnoses.

Tumor-treating fields, or TTFields, works by delivering low-intensity electric fields to cells, specifically targeting rapidly-dividing cells, such as cancer cells. These electric fields can stop cell division, causing tumor growth to slow or even reverse. Bandages hold insulated disks, called transducer arrays, directly on to the scalp. Patients typically wear the device for 18 hours per day.

This study looked at 695 patients with glioblastoma. Participants all had surgical removal or biopsy of the tumor and had completed initial radiation and chemotherapy. Two-thirds of the patients received TTFields and chemotherapy. The remaining one-third received chemotherapy alone. TTFields was given via electrodes attached to the patients’ scalps.

The addition of TTFields to the chemotherapy significantly improved survival. During treatment with TTFields, tumor growth was stopped for a median time of 6.7 months, compared with 2.7 months in the chemotherapy alone group. Median survival was 20.9 months in the TTFields group compared with 16 months in the chemotherapy alone group, indicating improved survival with the addition of TTFields.

The number of side effects reported in each group was equal. However, patients receiving TTFields treatment did have more localized skin reactions. Mild to moderate skin reactions occurred in 52% of patients receiving tumor-treating fields, with severe reactions occurring in 2% of these patients.

The authors noted that “the effects of the TTFields treatment and the need for continuous use of the device on quality of life will be reported separately.” The drop-out rate in the TTFields group was low, indicating that it was overall well tolerated. Based on this study, adding tumor-treating fields to the typical chemotherapy regimen significantly improved survival in patients with glioblastoma.

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