

Chemotherapy following radiation treatment slows disease progress

November 16 2014

A chemotherapy regimen consisting of procarbazine, CCNU, and vincristine (PCV) administered following radiation therapy improved progression-free survival and overall survival in adults with low-grade gliomas, a form of brain cancer, when compared to radiation therapy alone. The findings were part of the results of a Phase III clinical trial presented today at the Society for Neuro-Oncology's 19th Annual Meeting in Miami by the study's primary author Jan Buckner, M.D., deputy director, practice, at Mayo Clinic Cancer Center.

"On average, patients who received PCV lived 5.5 years longer than those who received radiation alone," says Dr. Buckner. "These findings build on results published in the *Journal of Clinical Oncology* in 2012 and presented at the 2014 annual meeting of the American Society of Clinical Oncology, which showed that PCV given with [radiation therapy](#) at the time of initial diagnosis prolongs progression free-survival but not overall survival."

The trial, RTOG 9802, enrolled 251 patients with low-grade gliomas between October 1998 and June 2002 to address the role of chemotherapy following radiation treatment. Patients enrolled were at high risk compared to other low-grade glioma patients because they were 40 years of age or older or had a less than complete surgical removal of their tumor if they were under 40.

Investigators also found that patients with oligodendroglioma had better outcomes than those with astrocytoma or oligoastrocytoma, as did

females.

"RTOG 9802 involved a network of investigators across the United States and Canada working through the National Cancer Institute's National Clinical Trials Network," says Dr. Buckner. "This trial could only have been conducted through a publicly-funded national clinical trials network." He says the next step is to study tumor tissue from participating patients to identify biomarkers that will allow researchers to determine which patients will benefit the most from specific therapies.

According to the American Cancer Society, approximately 23,000 people will be diagnosed with primary brain tumors in the United States in 2014 and, of those, 10 to 15 percent will have low-grade gliomas. Gliomas are tumors that begin in the brain or spinal cord. They are the most common form of [primary brain tumor](#).

Provided by Mayo Clinic

Citation: Chemotherapy following radiation treatment slows disease progress (2014, November 16) retrieved 4 February 2024 from

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