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A phase II study of intensified chemotherapy alone as initial treatment for newly diagnosed anaplastic oligodendroglioma: an interim analysis

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Abstract *Background* Anaplastic oligodendrogliomas (AO) and anaplastic oligoastrocytomas (AOA) are currently treated with a combination of surgery, radiotherapy and chemotherapy. Myeloablative therapy with autologous peripheral blood progenitor cell rescue (APBPCR) is one strategy to exploit the chemosensitivity of these tumors while deferring cranial radiation in an effort to avoid radiation-related neurotoxicity. *Methods* Twenty patients (16 AO, 4 AOA) with a median age of 46 years (range, 19–60) and KPS of 90 (range, 70–100) were treated with 4 cycles of procarbazine, Lomustine (CCNU) and vincristine (I-PCV) every six weeks. Responding patients were eligible for myeloablative therapy with busulfan and thiotepa followed by APBPCR. 1p and 19q chromosomes were analyzed prospectively but patients were enrolled without regard to deletion status. *Results* Fifteen patients (75%) had a response to I-PCV and 14 underwent transplant. Median disease-free and overall survival of the transplanted patients has not been reached but is at least 36 months. No patients required dose reduction or termination of I-PCV due to toxicity. Hepatic veno-occlusive disease (VOD) was a complication of transplant in three patients and resulted in one death. Patients with and without deletions of 1p and 19q had durable responses. *Conclusions* This regimen conferred durable responses in more than one-half of patients, allowing deferral of radiotherapy for three years or longer. The major

limitation of this approach is the acute toxicity associated with both the induction and consolidation regimens; temozolomide has replaced I-PCV for the current trial and the incidence and severity of VOD is being followed closely.

Keywords Anaplastic oligodendroglioma - Chemotherapy - 1p - 19q - Procarbazine

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References secured to subscribers.