

Intracavitary placement of lymphokine-activated killer (LAK) cells after resection of primary glioblastoma: an interim report.

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We previously reported on 40 patients with recurrent glioblastoma who experienced minimal toxicity, and had a 9.0 month median survival and a 1-year survival of 34% from the date of treatment with intra-lesional autologous LAK cells (*J Immunother* 27:398-404, 2004). The purpose of the current research is to obtain safety and efficacy data for the use of LAK placed intralesionally in patients with surgically proven primary glioblastoma in 40 such patients. Eligible patients have undergone primary therapy and are candidates for an additional craniotomy. This is an interim analysis of the first 20 patients to determine whether there are any safety or survival issues that should lead to early termination of the trial. This analysis includes 14 men and 6 women aged 41 to 74 years with a median age of 58. All had undergone prior surgery (11 near complete resection; 8 partial resection) except for one patient who initially had only a biopsy. All patients had received partial brain radiation and a gamma knife boost except for one patient who had only undergone a near complete resection and gamma knife therapy. Nine patients had received chemotherapy prior to LAK; 78% of these had received temozolomide. LAK cell production was satisfactory for all patients. At the time of analysis, median time since diagnosis was 2.3 years; median time from LAK cells was 1.8 years, and 11 patients had died. By Kaplan-Meier plot, median survival from the date of original diagnosis is 22.7 months with a 1-year survival rate of 84%. Median survival from the date of LAK cell therapy is 16.3 months with 70% surviving one year after receiving LAK Treatment was well-tolerated. Two patients developed post-LAK infection/fever, and one patient had a possible intralesional hemorrhage by scan that did not require intervention. This treatment is feasible, and the survival encouraging. Accrual is continuing to 40 evaluable patients.

