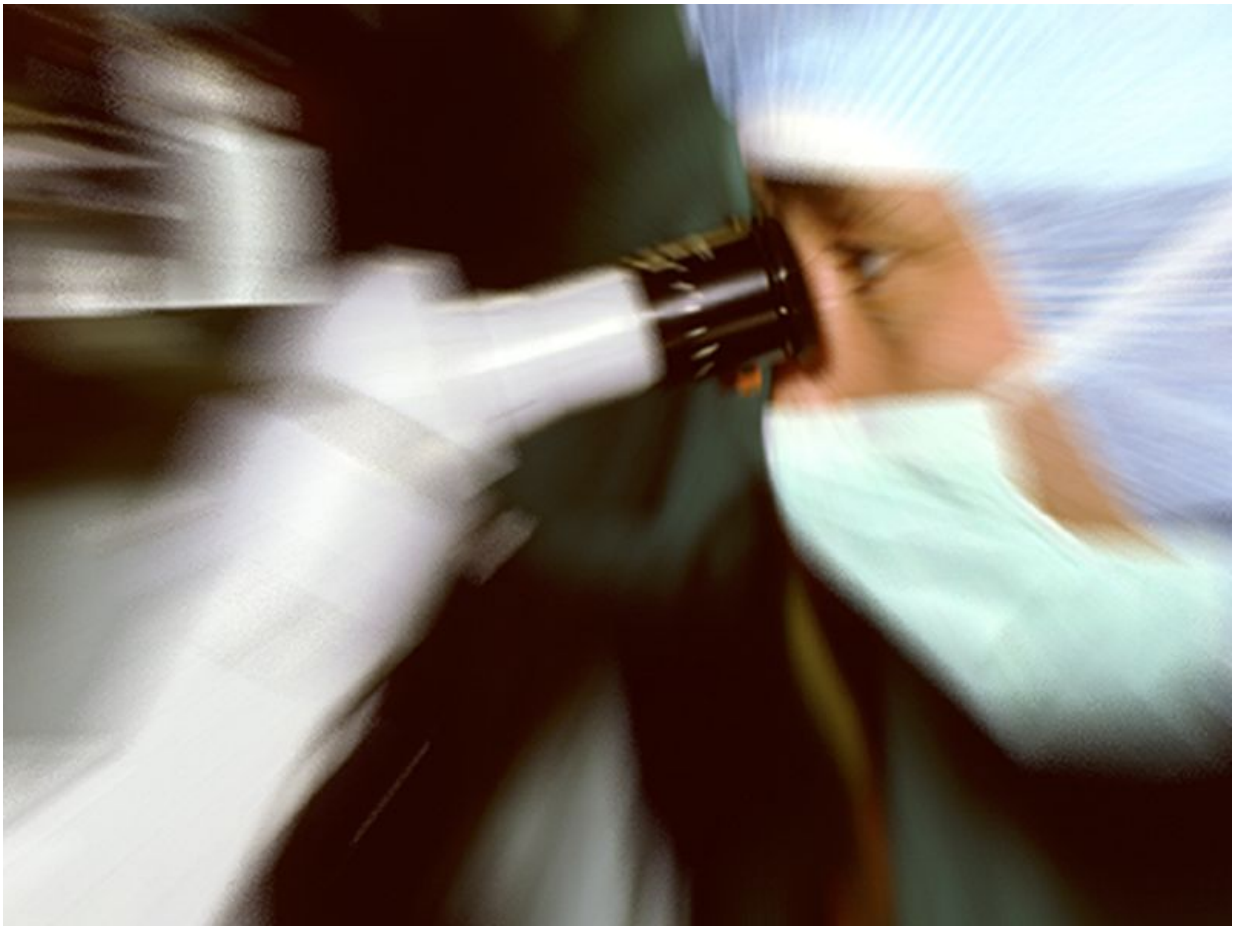
Case report: Adoptive T-cell Tx shows promise in glioblastoma

December 29 2016



(HealthDay)—Treatment with autologous chimeric antigen receptor

(CAR)-engineered T cells targeting the tumor-associated antigen interleukin-13 receptor alpha 2 (IL13Rα2) is associated with tumor regression in recurrent multifocal glioblastoma, according to a case report published in the Dec. 29 issue of the *New England Journal of Medicine*.

Christine E. Brown, Ph.D., from the City of Hope Beckman Research Institute and Medical Center in Duarte, Calif., and colleagues describe their clinical experience with a patient with recurrent multifocal glioblastoma who received CAR-engineered T cells. Over 220 days, multiple infusions of CAR T cells were administered through two intracranial delivery routes: infusions into the resected tumor cavity followed by infusions into the ventricular system.

The authors did not observe any toxic effects of grade 3 or higher in association with intracranial infusions of IL13Rα2-targeted CAR T cells. Regression of all intracranial and spinal tumors was observed after CAR T-cell treatment, with corresponding increases in cytokine and immune cell levels in the cerebrospinal fluid. This clinical response persisted for 7.5 months after CAR T-cell treatment initiation.

"We report that autologous CAR T cells targeting IL13Rα2 mediated a transient complete response in a patient with recurrent multifocal glioblastoma, with dramatic improvements in quality of life, including the discontinuation of systemic glucocorticoids and a return to normal life activities," the authors write.

More information: Full Text (subscription or payment may be required)