

# Polio-rhinovirus promising for malignant glioma patients

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(HealthDay)—Intratumoral infusion of recombinant nonpathogenic

polio-rhinovirus chimera (PVSRIPO) can be delivered safely and is tied to higher survival rates than those of historical controls, according to a study published in the July 12 issue of the *New England Journal of Medicine*.

Annick Desjardins, M.D., from Duke University Medical Center in Durham, N.C., and colleagues conducted a dose-finding and toxicity study among 61 consecutive adult patients who had recurrent World Health Organization (WHO) grade IV malignant glioma. The authors evaluated seven doses of convection-enhanced, intratumoral delivery of PVSRIPO in a dose-escalation phase and a dose-expansion phase.

Dose level –1 ( $5.010^7$  TCID<sub>50</sub>) was identified as the phase 2 dose. The researchers found that one dose-limiting toxic effect (a grade 4 intracranial hemorrhage immediately after the catheter was removed) was observed in a patient receiving dose level 5 ( $10^{10}$  TCID<sub>50</sub>). Dose level 5 was de-escalated to reach the phase 2 dose to mitigate locoregional inflammation of the infused tumor with prolonged glucocorticoid use. Overall, 19 percent of patients had a PVSRIPO-related adverse event of grade 3 or higher in the dose-expansion phase. A plateau of 21 percent overall survival among the patients who received PVSRIPO was reached at 24 months and sustained to 36 months.

"Intratumoral infusion of PVSRIPO in [patients](#) with recurrent WHO grade IV [malignant glioma](#) confirmed the absence of neurovirulent potential," the authors write.

Several authors disclosed financial ties to the pharmaceutical industry and/or hold patents related to treating tumors with oncolytic poliovirus.

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