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Targeted immunotherapy treatment shows promise for treating advanced stage liver tumors

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Advanced stage liver tumors may be safely treated through image-guided injections of an immunotherapy approved for melanoma, according to a study presented today at the Society of Interventional Radiology's Annual Scientific Meeting.

Researchers found that talimogene laherparepvec (T-VEC)—a genetically modified version of the herpes virus—can be safely administered into active cancer in the liver and stimulate the immune system to destroy cancer cells throughout the body.

"Advanced stage liver tumors, including ones that have spread from other locations, have limited treatment options because the patients can be in poor health; further, the complex structure of the organ can make it difficult to target with standard approaches," said Steven S. Raman, M.D., professor of radiology, surgery and urology at the David Geffen School of Medicine, University of California, Los Angeles, and lead author of the study. "This minimally invasive treatment offers patients a novel way to directly and indirectly attack the cancer cells."

Using image-guided needle injections, researchers at centers in the United States, Switzerland and Spain, treated 14 advanced-stage cancer patients with liver metastases, including those with cirrhosis. Patients were given escalating doses of T-VEC, up to the maximum FDA-approved dose for melanoma. Injection volume was based on lesion size.

Researchers found the patients tolerated the treatment well with expected side effects, including temporary flu-like symptoms.

As part of the study, researchers will follow patients for up to two years, and new trials to investigate the effectiveness of the drug in treating advanced cancer in the liver are being planned. Additional investigation is also planned to test the therapy in combination with a checkpoint inhibitor to activate a stronger immune response.

"Image-guided treatments have expanded the options available for patients with liver cancer from innovative approaches to biopsies to resections to chemo," said Raman. "This is an exciting way to look to the future, but patients living with advanced liver cancer should understand that this treatment will not be available for several years, except through clinical trials."

The authors note several limitations of the current study, including the preliminary nature of the results, as well as the number of patients tested.

Amgen, the pharmaceutical company that makes T-VEC, was a sponsor of the trial.

More information: Abstract 375: Early safety from a phase 1, multicenter, open-label clinical trial of talimogene laherparepvec (T-VEC) injected into liver tumors. S. Raman; M. Pless; A. Cubillo; A. Calvo; R. Hecht; C. Liu; E. Chan; J. Chesney; A. Prat; David Geffen School of Medicine, University of California, Los Angeles, CA;, Department of Oncology, Kantonsspital Winterthur, Winterthur, Switzerland; HM Universitario Sanchinarro, CIOCC, Madrid, Spain; Hospital General Universitario Gregorio Marañón, Madrid, Spain; Amgen Inc., Thousand Oaks, CA; James Graham Brown Cancer Center, University of Louisville, Louisville, KY; Hospital Clínic, University of Barcelona, Barcelona, Spain. SIR Annual Scientific Meeting, March

17-22, 2018. This abstract can be found at sirmeeting.org