Researchers develop treatment that turns tumors into cancer vaccine factories

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"The in situ vaccine approach has broad implications for multiple types of cancer," said lead author Joshua Brody, MD, Director of the Lymphoma Immunotherapy Program at The Tisch Cancer Institute at the Icahn School of Medicine at Mount Sinai. "This method could also increase the success of other immunotherapies such as checkpoint blockade."

After testing the lymphoma vaccine in the lab, it was tested in 11 patients in a clinical trial. Some patients had full remission from months to years. In lab tests in mice, the vaccine drastically increased the success of checkpoint blockade immunotherapy, the type of immunotherapy responsible for the complete remission of former President Jimmy Carter's cancer and the focus of the 2018 Nobel Prize in Medicine.

A clinical trial for lymphoma, breast, and head and neck cancer patients opened in March to test the vaccine with checkpoint blockade drugs. Because the combined immune therapy was at least three times more powerful than either checkpoint blockade or the vaccine by themselves, researchers are extremely optimistic about how effective this may be in patients in this new trial. The in situ vaccine is also being tested in the lab in liver and ovarian cancer.


Provided by The Mount Sinai Hospital