MedicalXpress

Single injection may revolutionize melanoma treatment, Moffitt study shows

August 23 2013

A new study at Moffitt Cancer Center could offer hope to people with melanoma, the deadliest form of skin cancer. Researchers are investigating whether an injectable known as PV-10 can shrink tumors and reduce the spread of cancer. PV-10 is a solution developed from Rose Bengal, a water-soluble dye commonly used to stain damaged cells in the eye. Early clinical trials show PV-10 can boost immune response in melanoma tumors, as well as the blood stream.

"Various injection therapies for melanoma have been examined over the past 40 years, but few have shown the promising results we are seeing with PV-10," said Shari Pilon-Thomas, Ph.D., assistant member of Moffitt's Immunology Program.

In the initial study, researchers injected a single dose of PV-10 into mice with melanoma. The result was a significant reduction in the skin cancer lesions, as well as a sizable reduction in melanoma tumors that had spread to the lungs. The researchers said the dye solution appeared to produce a robust anti-tumor immune response and may be safer than existing immunological agents.

"We are currently in the middle of our first human clinical trial of PV-10 for advanced melanoma patients. In addition to monitoring the response of injected melanoma tumors, we are also measuring the boost in the anti-tumor immune cells of patients after injection," explained Amod A. Sarnaik, M.D., assistant member of Moffitt's Cutaneous Oncology Program.

More information: The initial study appears in *PLOS ONE*, an open-access, peer-reviewed online journal.

Provided by H. Lee Moffitt Cancer Center & Research Institute