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Clinical trial looks to improve pancreatic cancer survival rates

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Researchers at Georgia Regents University Cancer Center are investigating a new avenue of treatment to help boost poor pancreatic cancer survival rates.

The treatment combines a standard chemotherapy drug with a monoclonal antibody that may help the immune system fight pancreatic cancer.

Every year, nearly 44,000 patients are diagnosed with pancreatic cancer and more than 37,000 die from the disease—including well-known figures such as Patrick Swayze, Margaret Mead and Luciano Pavarotti.

Despite increased public attention, the disease remains one of the deadliest forms of cancer because it tends to be symptom-free at its earliest—and most treatable—stages. Overall five-year survival rates are a dismal 5.6 percent.

Patients treated with surgery typically see their cancers recur within about seven months. Coupling surgery with the chemotherapy drug Gemcitabine in eligible patients extends disease-free survival to a little over 13 months. Now, researchers are turning to combination therapies to improve these rates, coupling chemotherapy with drugs that enhance the immune system's ability to fight cancer.

"One of the reasons cancer can be so difficult to treat is the fact that the immune system often doesn't recognize tumor cells as cancer, or the

tumors themselves express substances to suppress the immune system," said GRU Cancer Center Director Samir N. Khleif. "Immunotherapy is considered to be an important approach since it targets those specific substances in order to establish a more effective response against cancer."

Promise has already been shown in monoclonal antibodies that fight cancer's ability to evade the immune system, said Khleif, who is the principal investigator on a pilot study combining Gemcitabine with a monoclonal antibody called CT-011 in certain pancreatic cancer patients who have been treated with surgery.

In animal models, CT-011 has been shown to inhibit tumor growth and extend survival in melanoma, lung cancer, fibrosarcoma, leukemia/lymphoma and colorectal cancer. It works by shutting down cell production of a protein called PD1 and its related proteins. PD1, also known as programmed death 1, triggers immune suppression in cancer.

"One of the main causes for immune suppression in pancreatic cancer and other cancers is the elevated expression of these proteins in tumors and surrounding cells," said Khleif. "This is why our cancer center is taking a leading role in advancing clinical trials examining the effectiveness of combination therapies—which are increasingly being recognized as a promising new avenue of treatment for cancer."

Provided by Georgia Health Sciences University