Stephenson Cancer Center testing drug for prostate cancer patients on active surveillance

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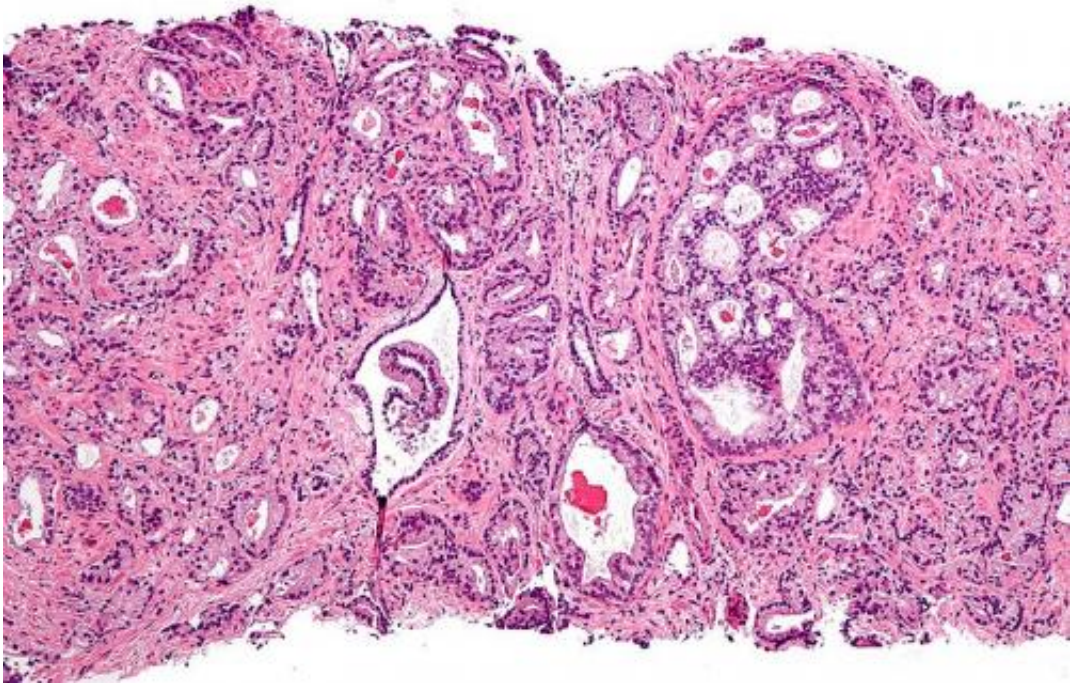

Micrograph showing prostatic acinar adenocarcinoma (the most common form of prostate cancer) Credit: Wikipedia, CC BY-SA 3.0

Men who are diagnosed with low-risk prostate cancer usually opt for active surveillance—a monitoring of their cancer over time without undergoing treatments that would cause side effects. In many men, the cancer never grows and poses no threat, but in others, the cancer begins

to grow and treatment is necessary.

Stephenson Cancer Center at OU Medicine recently launched a new clinical trial testing an immunotherapy drug for men who are on active surveillance. The hope is that the drug—which uses the patient's own immune cells and doesn't cause side effects—will attack and eliminate the cancer or keep it from changing over time.

"We're very excited about this clinical trial," said Kelly Stratton, M.D., Stephenson Cancer Center urologic oncologist who is leading the trial. "We think it's a valid way of helping patients who are on active surveillance. About a third of men who are on active surveillance will eventually need treatment for their cancer over time. Ultimately, we're trying to prevent them from ever needing treatment."

The drug is called Provenge and is already approved by the Food and Drug Administration to treat metastatic prostate cancer. However, when the drug was first being tested in patients, it worked best in men who had received earlier treatment of their prostate cancer. The next logical step in the research was to study how Provenge affected cancer over time in low-risk patients.

In the clinical trial, men who are randomized to receive Provenge will have their blood drawn, just as if they were donating blood. The immune cells are filtered out, and the rest of the blood is returned to the patient. The patient's cells are then shipped to a company out of state, where they are infused with a molecule that provokes an immune response specific to prostate cancer, coupled with a growth factor that stimulates the cells to grow. The cells are shipped back to Stephenson Cancer Center in three days and given back to the patient like a blood transfusion.

"Basically, it's activating a person's cells against prostate cancer and prompting them to recognize the cancer," Stratton said. "Once they've

been activated, our thought is that they will go to the prostate and either fight the cancer or keep it from growing."

Because Provenge uses the patient's own cells, most patients have little to no side effects, Stratton said. The immune cells are not genetically altered, making the treatment safe and well tolerated.

"That's the whole point of active surveillance—to minimize the risk of side effects that come with treatment like radiation therapy," he said. "With Provenge, we're not manipulating the cells—we're only doing what would happen naturally if the cells were to recognize prostate cancer."

If the clinical trial proves the drug to be successful in low-risk patients, it will also benefit patients' mental outlook, Stratton said. Most patients appreciate active surveillance because they can avoid treatment, but it can also lead to an unsettling feeling of not doing anything to keep the cancer in check, he said.

"Patients love the idea of active surveillance, but there's also a natural feeling of wanting to do something to address the cancer," he said. "We think this drug is something that will activate their immune system against the cancer, but their quality of life will stay the same."

Urologic oncologist Michael Cookson, M.D., chairman of the Department of Urology at the OU College of Medicine, said the Provenge trial is unique in offering men without symptoms of their prostate cancer the opportunity to see if their immune system can further reduce the risk of the cancer progressing.

"We've made major contributions to national clinical trials with our prostate cancer patients, who are brave and willing to allow us to try to move the science forward," Cookson said.

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