



News Article: Ultrasound Waves Being Used To Treat Prostate Cancer

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Ultrasound Waves Being Used To Treat Prostate Cancer

DURHAM, N.C. -- Duke University Medical Center is one of 12 centers in the country testing the safety and effectiveness of a minimally invasive procedure called High Intensity Focused Ultrasound (HIFU).

Since 79-year-old Herbert Halbrecht's cancer was at an early stage and his prostate was small to moderate size, he qualified for HIFU now in clinical trials at the Duke Prostate Center.

"This technology is specifically designed to treat the prostate with focused ultrasound waves," said Dr. Cary Robertson, lead investigator and an urologic surgeon with Duke University. "The ultrasound waves kill cancer cells with heat -- from 85 to 100 degrees centigrade. That's the boiling point for water."

The patient is under anesthesia while a probe is in the rectum. Using an ultrasound image of the prostate, the surgeon creates a map for heat exposure. Then, robotic controls follow the surgeon's commands.

Usually, treating prostate cancer involves cutting into the body to remove the prostate or inserting long needles into the prostate gland and exposing it to radioactive seeds. HIFU has been used in Europe for about a decade. Studies show 85 percent of patients were cancer-free five years after treatment.

"You compare that to traditional therapies of prostate cancer including radiation and surgery, that's very similar," Robertson said.

However, the big difference is in recovery time. If the procedure is done in the morning, the patient can usually go home in the afternoon. A day later, Halbrecht expressed his surprise at his speedy recovery.

"Well, just think of it, I had the surgery yesterday and I walked out of the hospital and this morning, I was (walking) around the streets here."

Even though Halbrecht was able to go out the next day for his usual morning stroll, it does take a few days before patients can resume full activities. Because the gland swells after the procedure, patients need a urinary catheter for 10 to 14 days after the procedure.

Duke researchers are looking for newly diagnosed patients with early-stage prostate cancer, meaning the tumor is still within the gland. They also require patients with a small- to moderate-sized gland. Researchers are comparing HIFU to another technique called cryotherapy, which involves freezing the prostate gland.

About 50 percent of men experience some form of sexual dysfunction and 5 percent to 10 percent may have mild urinary incontinence after the procedure. There is also a small risk of rectal burns.