

New 'seed' therapy helps pinpoint breast tumors with more accuracy

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Physicians at UT Southwestern Medical Center are the first in Texas to use a new technique in which a small radioactive pellet, or “seed”, is implanted into a mass or suspicious lesion in the breast to pinpoint its exact location for surgical removal.

During the procedure, a radiologist uses a needle to insert a small radioactive seed, about the size of a grain of rice, into the mass. Once lodged, surgeons use a wand that detects radioactivity to locate the mass and find the best pathway for removal.

“The new technique is less invasive for the patient and allows us to be more precise when removing possible breast-cancer tumors,” said Dr. Roshni Rao, a surgical oncologist who specializes in breast cancer.

Dr. Rao, an assistant professor of surgery, teamed up with Dr. Michael Ulissey, an associate professor of radiology at UT Southwestern, to use this new procedure at Parkland Memorial Hospital. The procedure is offered at only two other U.S. medical centers. Dr. Rao said the Harold C. Simmons Comprehensive Cancer Center at UT Southwestern also will soon begin offering the procedure.

Previously, a radiologist would lance a thin, hooked wire into the breast to help guide the surgeon to the location of the mass. While one end of the wire was lodged at or near the mass, the other end protruded from the patient’s skin.

Often, Dr. Rao said, the entry site of the wire was distant from the ideal site where a surgeon would prefer to make an incision. The wire also did not always take a direct path to the lesion.

The seed procedure pinpoints the location of a nonpalpable tumor more accurately than the wire and it is more efficient, Dr. Rao said. The wire method, on the other hand, requires patients to undergo the pre-operative procedure just hours before surgery because if left in longer, the wire could become dislodged.

“With the seed technique, the patient can have the seed inserted up to five days before surgery, any time of day,” Dr. Ulissey said. “The seed procedure also increases efficiency in the radiology department since we are not locked into a two-hour window to insert the wire on the day of the surgery.”

For patient Joan Hollers, 58, the pre-operative procedure was quick, easy and painless, she said.

After a mammogram had detected a suspicious mass in her left breast, Ms. Hollers consulted with Dr. Rao who decided on the seed procedure.

Dr. Ulissey numbed Ms. Hollers’ breast before inserting the radioactive seed, which gives off less radiation than the amount emitted by a standard X-ray.

“I felt the prick of what felt to me like a tiny needle,” said Ms. Hollers. “I went home with a small Band-Aid and went to work the next day.”

Several days later, the Rowlett resident returned to the hospital so that Dr. Rao could remove the suspicious mass.

While the mass in the left breast has been eliminated, Ms. Hollers will

undergo chemotherapy for a cancerous tumor that was found in her right breast and can't be surgically removed until the therapy is complete.

Despite the surgery and long road ahead, Ms. Hollers is optimistic.

“When I got the news that I didn't have cancer anywhere else in my body I told myself, ‘I'm not dying from this disease,’” said Ms. Hollers, a mother of three grown children and grandmother to eight grandchildren.

Source: UT Southwestern Medical Center

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