

New biopsies avoid the knife Tissue removal is quicker, less invasive

By John Staed
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Ten years ago, when a woman had a sonogram that showed an abnormality, an open biopsy was the way to learn whether it was cancer. Doctors used a scalpel to cut open the breast and remove the lesion. A lab report later told the woman and the doctor whether cancer was present.

Unfortunately, the procedure resulted in the removal of large amounts of breast tissue as well as scarring that showed up on later mammograms.

In many cases, the surgery was unnecessary because most abnormalities that show up on the mammogram-about 75 percent-are found to be benign.

But advances in removing tissue to test for cancer mean women often can avoid the "knife" in favor of newer biopsy techniques that save tissue and avoid unnecessary surgery.

"Now if something comes up even a little suspicious, we have methods while the breast exam is being done where we can have the suspicious area sampled with a needle and can know without question the exact diagnosis," said Dr. Peter Dempsey, an associate professor of radiology at the University of Alabama at Birmingham.

To remove tissue, today doctors can turn to:

- Fine needle aspiration, where they use a relatively small-gauge needle, about the size of a pin, to sample the abnormality, send it to a pathologist and have a diagnosis in as little as 15 minutes.
- Core biopsies, where a core of tissue is removed, using either ultrasound or X-ray (stereotactic) imaging to guide the needle that removes the sample of tissue.
- Excisional biopsy, which is the use of the scalpel to remove the lesion or abnormality.

Which method is used depends on the size and location of the lesion, size of the breast and other factors, Dempsey said.

Because women may have two or three abnormalities on their mammographies over a lifetime, the biopsy advances mean women "can avoid operations so much of time," said Dr. Susan Winchester, a general surgeon who specializes in breast cancer cases and who practices at St. Vincent's Hospital.

"We've advanced from the days of making large incisions on the breast and taking out large amounts of tissue that are later found to be benign," she said. "It does give a woman more options about how to find out about an abnormality on her mammogram."

Even if most abnormalities are benign, breast cancer remains the most common malignancy for women with an estimated 100,000 American women developing breast cancer each year. About 45,000 women annually die from the disease.

Among the biopsies, Dr. Winchester said more women need to know that a stereotactic breast biopsy is available for some cases. The procedure, which falls under the core biopsy category and uses X-ray imaging to locate the abnormality, involves using a needle to sample the tissue.

Stereotactic biopsies sample suspicious areas and remove more of the lesions and less of the healthy tissue, Dr. Winchester said. It also costs less, about \$1,800 compared with \$4,500 to \$5,000 for another biopsy procedure commonly used, needle localization and excision, she said.

"Most women do not know if its availability," said Dr. Winchester, who has performed more than 350 stereotactic biopsies since she began the procedure in 1992.

"If you have multiple areas of calcifications or multiple nodules, it would be disfiguring to remove all those," Dr. Winchester said. "With the stereotactic procedure, multiple things can be sampled without a lot of incisions and a lot of volume of breast tissue being removed."

Dempsey said the woman's abnormality dictates what procedure should be used. "It's always a very dangerous thing to say this is the method du jour," he said. "One is not necessarily right or wrong."

Although ultrasound guidance is quicker than the X-ray stereotactic method of obtaining biopsies, "both are extremely accurate," Dempsey said.

Using the ultrasound method, doctors can watch-in real time-as they guide the needle through a lesion. Stereotactic biopsies are adept at locating tiny lesions called microcalcifications, Dempsey said.

At UAB, doctors turn to the ultrasound method 80 percent of the time, although stereotactic equipment also is used.