Study faults partial radiation for breast cancer

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New research casts doubt on a popular treatment for breast cancer: A week of radiation to part of the breast instead of longer treatment to all of it.

Women who were given partial radiation were twice as likely to need their breasts removed later because the cancer came back, doctors found.

The treatment uses radioactive pellets briefly placed in the breast instead of radiation beamed from a machine. At least 13 percent of older patients in the U.S. get this now, and it is popular with working women.

"Even women who aren't working appreciate convenience," but they may pay a price in effectiveness if too little tissue is being treated, said study leader Dr. Benjamin Smith of MD Anderson Cancer Center in Houston.

Results were to be reported Wednesday at a conference in San Antonio along with a more positive development: a new test that may help show which women need only surgery for a very early type of breast cancer called DCIS. The results suggest that about three-fourths of the 45,000 women diagnosed with DCIS annually in the U.S. could skip the radiation and hormone-blocking pills usually recommended to prevent a recurrence.

About 230,000 cases of breast cancer are diagnosed each year in the U.S., most in an early stage. Typical treatment is surgery to remove the

lump, followed by radiation every weekday for five to seven weeks. That's tough, especially for older women and those in rural areas.

Doctors hoped that a shorter approach, called brachytherapy, would be just as good with fewer side effects. To do it, they temporarily place a thin tube into the cavity where the tumor was.

"You come in twice a day and there's a machine that puts in a radiation seed that stays there a few minutes and then you go home," Smith explained.

Treatment takes only five days and the total radiation dose is comparable to the longer method. But a smaller area - just around the lump - gets treated instead of the whole breast.

Although at least three companies sell equipment for brachytherapy, no big studies have tested its safety and effectiveness.

Researchers looked at Medicare records on 130,535 women who had lumps removed and radiation. Less than 1 percent chose brachytherapy in 2000 but that rose to 13 percent by 2007.

After accounting for differences in age, tumor size and other factors, researchers found that within five years, 4 percent of brachytherapy patients needed surgery to remove the breast where the original tumor had been versus only 2 percent of those given traditional radiation. Hospitalization, infections, broken ribs and breast pain also were more common with brachytherapy.

It remains experimental, and women who want it should join a more rigorous study of it going on now, said Dr. Peter Ravdin, breast cancer chief at the UT Health Science Center in San Antonio.

"I'm putting patients on the trial" and not recommending it otherwise, he said.

Brachytherapy costs about twice as much as standard radiation, estimated at $10,000 to $20,000.

Other research involves a test that measures the activity of genes that help predict recurrence risks for women with DCIS, or ductal carcinoma in situ - cancer that is confined to a milk duct. It's usually found from mammograms before it causes symptoms.

Surgery cures most cases, but about 20 percent will recur within 10 years, so doctors usually recommend five to seven weeks of radiation or years of hormone-blocking drugs.

"Although it works, it's a lot of treatment and we treat the many to benefit the few," because there's no good way to tell who can safely skip it, said Dr. Lawrence Solin of Albert Einstein Medical Center in Philadelphia.

He led a study with other researchers and the test's maker, Genomic Health Inc. of Redwood City, Calif. The company already sells a test to gauge which women with invasive cancers most need chemotherapy versus hormone-blocking medicines alone. The DCIS test uses some of the same genes.

Doctors checked its predictive value using 327 stored tumor samples. Test scores separated women into low, high and medium risk groups that reflected how they fared 10 years later. About 75 percent fell into a low-risk category that could be spared treatment beyond surgery.

"If it's right it would have significant value for patients," but this needs to be validated in a bigger study before the test is widely used, said

Robert Clarke, dean for research at Georgetown University Medical Center. "It tells you how well it sorts out a population, but it doesn't tell you how good it is at putting an individual woman in the right group."

Dr. Joseph Sparano of Montefiore Einstein Center for Cancer Care in New York, who helped conduct the study, disagreed.

"Doctors are making decisions already without this information" and the test gives a valuable new clue, he said.

But an expensive one. The company will charge the same for the DCIS test as its current one for invasive breast cancer - $4,175, which Medicare and most insurers cover, said chief medical officer Dr. Steven Shak.

The company plans to start selling it by the end of the year under federal lab rules that just require proof that the test reliably measures genes - not that this has value for patients.

The cancer conference is sponsored by the American Association for Cancer Research, Baylor College of Medicine and the UT Health Science Center.

More information: Cancer conference: http://www.sabcs.org