Breast Cancer Incidence Stayed Low After HRT Decline

April 18, 2007

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As Peter Ravdin, M.D., Ph.D., of the University of Texas M.D. Anderson Cancer Center, and colleagues reported at the San Antonio Breast Cancer Symposium last December, the incidence fell 7% from 2002 to 2003, reversing a 20-year trend.

That reversal followed closely on the heels of publication of the Women's Health Initiative results, which showed that five years of hormone replacement therapy (HRT) in postmenopausal women increased breast cancer risk by 24%, and a subsequent plunge in HRT prescriptions.

And now, in an extended analysis of their previous study, Dr. Ravdin, and colleagues, showed that the breast cancer incidence was unchanged from 2003 to 2004, indicating that the decline they had previously seen was not a statistical fluke, they reported in the April 19 issue of the New England Journal of Medicine.

"This kind of study can't prove causality, but the data present a very compelling link between hormone replacement therapy and breast cancer," said co-author Donald Berry, Ph.D., also of M.D. Anderson.

In their earlier report, Dr. Ravdin and colleagues used data from the National Cancer Institute's Surveillance, Epidemiology, and End Results (SEER) program, which collects information on 9% of the U.S. population, to study breast cancer rates.

Using the SEER data, they found that the total decrease from 2002 to 2003 was 6.7%, a decline that followed a 38% drop in prescriptions for HRT in the United States.

And in the current analysis, comparing cancer registry data from 2001 with data from the same sources in 2004, the authors saw an 8.7% decrease in the annual age-adjusted incidence of breast cancer, but only in women over the age of 50.

What's more, most of the decline was accounted for by a 14.7% drop in the number of estrogen-receptor-positive tumors, which may have occurred when women with subclinical estrogen-receptor positive tumors abruptly stopped taking hormones, the authors suggested. In contrast, estrogen receptor-negative tumors decreased by only 1.7%, and this change was not statistically significant.

The findings add weight to the recommendations about limited used of HRT to treat the symptoms of menopause.

"The decision about use of HRT is complex," said co-author Christine D. Berg, M.D., of the National Cancer Institute. "While HRT provides relief from the symptoms of menopause, it may also increase one's risk of breast cancer. It is important that women meet with their doctor to discuss what decision is right for them, particularly if they are at high risk for breast cancer."

But an international advocacy group cautioned that Dr. Ravdin and colleagues are jumping to conclusions when they link HRT to breast cancer risk.

"While being pleased with these new data on the incidence of breast cancer, the International
Menopause Society advises caution in linking these two parallel trends observed in the U.S.," read a statement from the Lancaster, England, group, "Any attempt to put both observations into one framework is premature and there is little scientific basis for such an assumption. In fact, the authors themselves mention in the manuscript that other factors might have contributed to these changes in breast cancer incidence."

Although Dr. Ravdin and colleagues acknowledged the possibility of alternate explanations, such as a flaw in the NCI's SEER program they used for their data, or a decline in screening mammmography among women with estrogen-receptor-positive tumors, the most likely explanation for the decline, based on the evidence at hand, was the sudden drop-off in HRT, they argued.

"Notably, the change in the use of hormone-replacement therapy also followed a time course that was similar to the decline in breast-cancer incidence, with a sharp decline followed by a relative stabilization at a new, lower level," they wrote.

Prescription for Premarin and Prempro, the two most commonly prescribed forms of HRT, declined from 62 million in 2000 to 61 million in 2001, 47 million in 2002, 27 million in 2003, 21 million in 2004, and 18 million in 2005, the authors noted.

Dr. Berry noted that the sharp drop in breast cancer rates they saw reflected the decrease in incidence across the entire population studied, and cannot be construed to apply to individual risk.

"At best, based on this analysis, an individual woman could reduce her individual risk of developing breast cancer by one in 60, or about 1.7% if she stopped using hormones," he said.

Dr. Ravdin added that "the risk of developing breast cancer from use of these hormones is relatively small and for some women with postmenopausal symptoms, the benefits of HRT are well worth that risk. This is just another small piece of the puzzle to help women gauge the risks and benefits of using HRT."

The study was funded by grants from the National Cancer Institute and from M.D. Anderson. The authors had no relevant financial conflicts of interest.

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