Breast-healthy lifestyle worthwhile, study confirms

October 12 2010

Having a family history of breast cancer can lead some people to wonder if their risk is out of their control. However, a study of more than 85,000 postmenopausal women observed that regular physical activity, maintaining a healthy weight, and drinking less alcohol lowers breast cancer risk for women with, and without a family history of the disease.

The University of Rochester Medical Center study, published online Oct. 12, 2010, by the journal Breast Cancer Research, is good news for women who have a close relative with breast cancer and thus fear that no matter what they do, it won't matter, said lead author Robert E. Gramling, M.D., D.Sc., associate professor of Family Medicine, and Community and Preventive Medicine at URMC.

"It's important to note that a family history of breast cancer can arise in part due to shared unhealthy behaviors that have been passed down for generations," Gramling said. "Untangling the degree to which genes, environments, and behaviors contribute to the disease is difficult. But our study shows that engaging in a healthy lifestyle can help women, even when familial predisposition is involved."

Gramling analyzed data from the Women's Health Initiative Observational Study that began in 1993. The data included women ages 50 to 79, but excluded women with a personal history of breast cancer or with a close relative with early-onset (before age 45) breast cancer.

Researchers decided to exclude women in the latter group because they
wanted to focus on whether the American Cancer Society recommendations on diet, exercise and alcohol consumption could plausibly influence disease rates. Women with relatives who were diagnosed prior to age 45 might have a more dominant genetic pattern so they were excluded, the study said.

The WHI-OS data divided women into two groups, those who had a family history of later-onset breast cancer (after age 45) and those who did not. Researchers further categorized the data, based on the degree to which women said they adhered to the ACS guidelines. "Complete adherence" equaled a minimum of 20 minutes of vigorous exercise at least five days a week, maintain a normal weight, and drink no more than one alcoholic beverage a day.

Finally, researchers looked at the cases of invasive breast cancer that arose during a mean follow-up period of 5.4 years. They assessed the relationship between rates of new invasive breast cancer cases, a family history of late-onset breast cancer, and whether either group was modified by the healthy lifestyle recommendations.

Among women with a family history who adhered to all three healthy behaviors, the rate of invasive breast cancer was 5.94 per 1,000 woman-years, compared with 6.97 per 1,000 woman-years among women who adhered to none of the behaviors, the study found.

Among women without a family history who adhered to all three healthy behaviors, the rate of invasive breast cancer was 3.51 per 1,000 woman-years compared to 4.67 per 1,000 woman-years for those who adhered to none.

The amount of risk reduced by adhering to the three health behaviors was the same for women with and without a family history.
Breast cancer is the most common form of cancer diagnosed in women, aside from non-melanoma skin cancer. About 15 percent of all postmenopausal women have a genetic predisposition to the disease.

Given the strong awareness of breast cancer and distress about inheritable risk, Gramling said, it is essential that scientists understand the actions women can take to reduce their risk.

doi:10.1186/bcr2727

Provided by University of Rochester Medical Center


This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.