

Moderate Exercise Improves Breast Ca Outcomes

Study results suggest a possible hormonal mechanism for effect on cancer survival, researchers said.

BY MICHELE G. SULLIVAN
Mid-Atlantic Bureau

Women who exercise moderately after a diagnosis of breast cancer experience a 20%-50% reduction in their risk of breast cancer death or breast cancer recurrence, data from the Nurses' Health Study suggest.

The survival advantage is particularly strong for women who have estrogen or progesterone receptor-positive tumors.

These women experienced a 50% decrease in the risk of breast cancer death, reported Michelle D. Holmes, M.D., of Harvard Medical School, Boston, and her colleagues.

"Our results suggest a possible hormonal mechanism for improved survival among women who are physically active," the researchers said.

Physical activity might also increase survival through short- and long-term improvements in insulin resistance and reduction in hyperinsulinemia (JAMA 2005;293:2479-86).

Since the maximum benefit occurred with moderate levels of exercise (walking

3-5 hr/wk at a moderate pace), the researchers concluded that women with breast cancer should follow the exercise recommendations set forth by the Centers for Disease Control and Prevention: exercise at moderate intensity for 30 or more minutes per day, at least 5 days per week.

It has been estimated that women decrease their physical activity levels by 2 hr/wk after a diagnosis of breast cancer, and that less than one-third of survivors exercise at the recommended level.

The investigators used data from the national Nurses' Health Study for their retrospective analysis, which followed 2,987 women with stages I, II, or III breast cancer who were diagnosed between 1984 and 1998. The women were followed until June 2002 or death, whichever came first.

Activity was determined by self-report and analyzed by metabolic equivalent task (MET)-hours. Three MET-hours are equivalent to walking 2-2.9 mph for 1 hour.

After adjusting for variables such as age, smoking status, and hormone therapy use, women who engaged in 3-8.9 MET-hr/wk had a 20% decreased risk of death

from breast cancer, compared with those who exercised less.

Those who engaged in 9-14.9 MET-hr/wk had a 50% decreased risk. There was no additional benefit for more exercise: women who engaged in 15-23.9 MET-hr/wk had a 44% decreased risk, and women who exercised more than that had a 40% decreased risk.

Risk of recurrence also was lowest for women who engaged in 9-14.9 MET-hr/wk. These women had a 43% decreased risk, compared with women who accrued less than 3 MET-hr/wk.

Exercise also improved 10-year survival rates, the researchers said. The survival rate was 86% for less than 3 MET-hr/wk; 89% for 3-8.9 MET-hr/wk; and 92% for at least 9 MET-hr/wk.

The protective benefit was similar among overweight women and those of normal weight, and greater for women

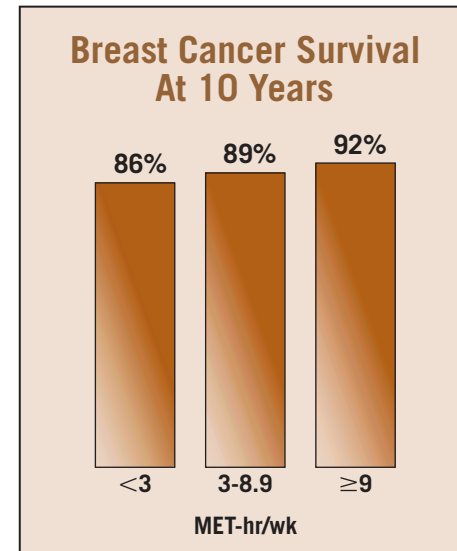
with hormone receptor-positive tumors. Those with hormone receptor-positive tumors who exercised moderately had a 50% decreased risk, compared with a 9% decreased risk for those whose tumors lacked hormone receptors.

Exercise was also particularly beneficial for women with more advanced breast cancer.

Women who had stage III breast cancer and engaged in at least 9 MET-hr/wk had a 63% decreased risk of breast cancer death, compared with women with stage III breast cancer who exercised less.

However, the researchers noted, these results were based on only 76 women and 15 breast cancer deaths.

When they analyzed risk by type of exercise, the researchers found that both walking and vigorous exercise contributed to lowering the risks. ■



Angiosarcoma Rate in Breast Cancer Survivors Will Rise, Pathologist Predicts

BY TIMOTHY F. KIRN
Sacramento Bureau

NAPLES, FLA. — In the last year, Michael B. Morgan, M.D., has seen four cases of angiosarcoma on the breast of women who previously underwent radiation therapy for breast cancer.

Historically, there are only about 100 cases of angiosarcoma a year in the United States, and normally they occur in "sun-battered" areas, said Dr. Morgan, a dermatopathologist who practices in Tampa.

"I think we are at the precipice here of a real interesting and deadly epidemiologic phenomenon," he said at the annual meeting of the Florida Society of Dermatology and Dermatologic Surgery.

"I don't want to be Chicken Little, but I honestly think we could be on the cusp of something big, and we need to be vigilant," he added.

Angiosarcoma associated with irradiation of the breast was first noted back in the 1940s, and in that report it was said to be associated with chronic lymphedema. Since then, numerous other reports of angiosarcoma have appeared, but there has been controversy over whether the disease occurs frequently enough to warrant concern.

It may be, however, that not enough women have been followed

long enough. His four cases were all women who had been treated for breast cancer 20 years previously, which corresponds roughly to the time that breast-conserving treatment with radiation became standard practice, Dr. Morgan said.

Older case series estimated an incidence of angiosarcoma in irradiated, breast-cancer patients of less than 1%; however, more recent series have suggested a prevalence of 1%, and perhaps 3%.

In a recent series of 27 cases seen at Indiana University, it was reported that only 5 of the 27 cases occurred within 3 years of irradiation treatment, and the median interval was 59 months (Am. J. Surg. Pathol. 2004;28:781-8), Dr. Morgan noted.

In that series, lymphedema was largely absent; this has also been true in Dr. Morgan's cases. However, since angiosarcoma can be associated with chronic lymphedema, Dr. Morgan said he is concerned about melanoma patients who have lymph nodes removed.

"I haven't seen this, but I worry about the rash of lymph nodes that we are taking out of people's arms and legs now with melanoma, and whether this indeed is going to end up being a risk," he said.

The prognosis of angiosarcoma is very poor. In a series of 47 typical angiosarcoma patients reported by

Dr. Morgan, the overall survival at 5 years was only 34%, and the local recurrence rate at 5 years was 84% (J. Am. Acad. Dermatol. 2004;50:867-74).

Clinically, a typical angiosarcoma starts out as a bruise-like macule that rapidly evolves into an erythematous patch, and then to a violaceous, ulcerated nodule or plaque. The angiosarcomas on the breast may be somewhat different, because the ones he has seen have mostly been flattened, tan-colored, indurated patches that looked a little like Kaposi's sarcoma, Dr. Morgan said. It can be multifocal at presentation.

Histologically, biopsies usually show a preserved epithelium, with extravasated red cells and lots of nuclei in the deeper dermis, as one would expect of a cancer that arises from endothelial cells of the arteriovenous or lymphatic structures, Dr. Morgan said. In later stages, one can clearly see a complex, vasiform pattern of growth. The most useful stain is CD31, which confirms the endothelial derivation of the neoplastic cells, he added.

In his case series, Dr. Morgan looked at prognostic factors. He found that mitotic rate and recurrence were bad prognostic factors. But, the most important factor was the depth of invasion, with a cutoff depth of 3 mm. ■

Counseling Helps Women At Risk for Ovarian Cancer Take Action

NEW YORK — Enhanced counseling can help women at high risk of ovarian cancer make better use of the information they receive from genetic testing for BRCA1 and BRCA2 mutations, according to a study presented in poster form at a cancer symposium sponsored by New York University.

The few studies that have examined the effects of genetic testing on decision making have found that a significant proportion of eligible women don't take any action after learning their genetic status, according to Suzanne Miller, Ph.D., of Fox Chase Cancer Center in Philadelphia, and her associates.

The investigators randomized approximately half of the study's 80 women who were at high risk for ovarian cancer based on family history to receive "enhanced counseling" before genetic testing.

This process was aimed at helping the women "pre-live" how they might respond to their test results.

"We wanted to help women anticipate how they would react, so they would be prepared for it," Dr. Miller, the study's lead investigator, said in an interview.

Six months later, 68% of the women in the intervention group had sought prophylactic oophorectomy information, and 28% had undergone the surgery.

In the control group, which had received standard counseling along with information about improving their general health, 26% had sought information on oophorectomy and 6% had had the surgery.

"The women in the intervention arm were in a position to take action when they got their results," Dr. Miller said.

"This indicates that enhanced counseling can play an important role in decision making after BRCA1 and 2 testing," she added.

The symposium was also sponsored by the Lynne Cohen Foundation for Ovarian Cancer Research.

—Gina Shaw