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Risk Factors for Contralateral Breast Cancer Identified

A preventive procedure to remove the unaffected breast in breast cancer patients with disease in one breast may only be necessary in patients who have high-risk features as assessed by examining the patient's medical history and pathology of the breast cancer, according to researchers at The University of Texas M.D. Anderson Cancer Center.

Their findings, published in the March 1, 2009 issue of *Cancer*, may help physicians predict the likelihood of patients developing breast cancer in the opposite breast (contralateral breast cancer), stratify risk and counsel patients on their treatment options.

"Women often consider contralateral prophylactic mastectomy (CPM) not because of medical recommendations, but because they fear having their breast cancer return," said Kelly Hunt, M.D., professor in the Department of Surgical Oncology at M.D. Anderson and lead author on the study. "Currently it is very difficult to identify which patients are at enough risk to benefit from this aggressive and irreversible procedure. Our goal was to determine what characteristics defined these high-risk patients to better inform future decisions regarding CPM."

According to the researchers, approximately 2.7% of women diagnosed with breast cancer choose to have CPM. Recent statistics have shown that the rate of CPM in women with stage I-III breast cancer increased by 150 percent from 1998 to 2003 in the United States. Potential reasons breast cancer patients choose to undergo CPM include risk reduction, difficult surveillance and reconstructive issues such as symmetry and/or balance.

To begin to classify such risk factors, researchers reviewed the cases of 542 women with breast cancer only in one breast who received CPM to remove the second breast at M.D. Anderson from January 2000 to April 2007. Out of this group, 435 patients had no abnormal pathology identified in the opposite breast, 25 patients had contralateral breast cancer identified at surgery, and 82 patients had abnormal cells (atypical ductal hyperplasia, atypical lobular hyperplasia and lobular carcinoma in situ) that indicate a moderate to high-risk for breast cancer development in the contralateral breast found at the time of surgery.

Further analysis of the patients with contralateral breast cancer revealed that a five-year Gail risk of 1.67 percent or greater; an invasive lobular histology; and multiple tumors in the original breast were all strong predictors for contralateral breast cancer. Patient race, estrogen receptor status and progesterone receptor status were not associated with increased risk.

The Gail model, typically used for patients without breast cancer, evaluates factors such as age, age at menarche, number and findings of previous breast biopsies, age at first live

birth and number of first-degree relatives with breast cancer, has been validated in several studies to calculate the risk of developing an invasive breast cancer over the next five years. The five-year risk of 1.67 percent is traditionally used as the cutoff point for the definition of "high risk."

Psychological Interventions Associated With Breast Cancer Survival

A new study finds that breast cancer patients who participate in intervention sessions focusing on improving mood, coping effectively, and altering health behaviors live longer than patients who do not receive such psychological support. The study indicates that reducing the stress that can accompany cancer diagnosis and treatment can have a significant impact on patients' survival.

Cancer patients undergo a significant amount of stress before, during and after treatment. Many researchers have theorized that providing mental health services in addition to cancer care may improve patients' health and even prolong their survival. But studies linking psychotherapy to improved survival have had inconsistent results. To test the hypothesis, Dr. Barbara L. Andersen and colleagues at the Ohio State University conducted a randomized clinical trial with newly diagnosed breast cancer patients that tested whether receiving a psychological intervention could reduce the negative effects of stress and ultimately change the course of a patient's disease. Previous papers have shown that the intervention significantly improved psychological, behavioral, and health outcomes and enhanced immunity.

The investigators followed the 227 patients who had been treated for regional breast cancer for an average of 11 years, noting any cancer recurrences. Overall, they found that cancer recurred in 62 of 212 (29%) women for whom recurrence data was available; 54 of the total group of 227 (24%) died. Patients who were randomized to the intervention groups had about half (55%) the risk of recurrence compared to the control patients. The patients who did suffer a recurrence had been cancer-free an average of six months longer than the patients in the control group, a (45%) reduced risk. The study also found patients receiving the intervention had less than half the risk (44 %) of death from breast cancer compared to those who did not receive the intervention, and had a reduced risk of death from all causes, not just cancer.

The authors hypothesize that psychological interventions may impact immune changes that are secondary to stress hormones and that may promote cancer growth or metastasis, and that in addition to treating cancer patients with powerful antitumor medications, it is also important to treat psychological distress as well.

"If efficacious psychological interventions to reduce stress are delivered early, they will improve mental health, health and treatment-relevant behaviors, and potentially biologic outcomes," the authors wrote. "If so, there is the possibility for improved survivorship and survival for cancer patients," they added.

