

## Reduced-fat diet lowers risk of relapse in early-stage breast cancer

**D**ietary fat reduction lowers the risk of relapse among women treated for early-stage breast cancer, reported Rowan T. Chlebowski, MD, PhD, an oncologist at the Los Angeles Biomedical Research Institute at Harbor-UCLA Medical Center. However, when both estrogen receptor (ER) and progesterone receptor (PR) statuses were considered, only women whose tumors were doubly negative benefited significantly.

Between 1994 and 2001, investigators recruited women with early-stage breast cancer who had undergone primary surgery (with or without radiation therapy) and received systemic therapy (including tamoxifen for hormone receptor-positive disease) to the phase III Women's Intervention Nutrition Study (WINS). At baseline, they were required to have a dietary fat intake of at least 20% of calories. Within 1 year of surgery, they were randomized to a control condition or a dietary intervention of reduced fat intake.

Dr. Chlebowski presented mature results of the study and compared them with recently published interim results (*J Natl Cancer Inst* 2006;98:1767-1776). He noted that the trial's funding was in-

terrupted between May 2004 and June 2005. The interim results were obtained after a median follow-up of 60 months, while the dietary intervention was still in progress, whereas the current results were obtained from only those centers agreeing to resume follow-up.

The 2,437 women studied had a mean age of about 58 years. Seventy-three percent of women had node-negative disease. About 80% had ER-positive tumors and 67% had PR-positive tumors.

At baseline, the percentage of calories from fat was 29.6% in both groups. Analyses based on the last active follow-up showed that compared with the control group, the intervention group had significantly greater changes at years 1, 3, and 5 in total fat intakes and percentage of calories from fat. They also had significantly greater changes in body mass index and weight.

### **Greatest benefit in hormone receptor-negative patients**

Relapse-free survival was marginally reduced in the intervention group relative to the control group with the mature follow-up (hazard ratio [HR], 0.79; 95% confidence interval [CI], 0.62-1.00); this result was compared with a some-

what greater reduction as of the interim follow-up (HR, 0.76; CI, 0.60-0.98). Overall survival was nonsignificantly reduced in the intervention group relative to the control group with mature follow-up (HR, 0.78; CI, 0.59-1.03); this finding was compared with a somewhat lesser reduction as of the interim follow-up (HR, 0.89; CI, 0.65-1.21).

Compared with the control condition, the dietary intervention conferred a significant reduction in relapse risk among ER-negative patients (HR, 0.59) but not ER-positive patients and also among PR-negative patients (HR, 0.53) but not PR-positive patients. With combinations of the two receptor statuses, only women who had tumors that were both ER and PR negative had a significantly reduced risk of relapse (HR, 0.46). The finding of benefit in only the dually ER- and PR-negative subset was similar for disease-free (HR, 0.47) and overall survival (HR, 0.34).

Chlebowski RT, Blackburn GL, Elashoff RM, et al. Mature analysis from the women's intervention nutrition study (WINS) evaluating dietary fat reduction and breast cancer outcome. Paper presented at the 29<sup>th</sup> Annual San Antonio Breast Cancer Symposium; December 14-17, 2006; San Antonio, Tex. Abstract 32.