Can Diet Prevent Breast Cancer?

Mitchell H. Katz, MD

There is a large body of observational data on the effect of diet on incidence of cancer. The problem is that observational studies of diet are prone to confounding because people who eat a particular type of diet are likely to be different in other ways from their comparators. For example, people who eat lots of fruits and vegetables are likely to engage in other health-promoting behaviors compared with those who eat a diet heavy in meat, animal fat, or processed foods. Although sophisticated multivariable modeling, combined with the currently popular propensity scores, can attempt to isolate the impact of a single effect, statistical adjustment of known confounders for observational data is imperfect, and adjustment for unknown or unmeasured confounders, impossible.

When the Editors read the study by Toledo et al on the impact of a Mediterranean diet on the incidence of breast cancer, we were immediately impressed that it was a randomized clinical trial of diet. Using this high-quality structure, they observed significant decreases in cancer incidence in the women randomized to the Mediterranean diet supplemented with extra-virgin olive oil compared with the control group.

Of course, no study is perfect. This one has a small number of outcomes (only 35 incident cases of breast cancer), the women were not all screened for breast cancer with mammography, they were not blinded to the type of diet they were receiving, and all were white, postmenopausal, and at high risk for cardiovascular disease. Still, consumption of a Mediterranean diet, which is based on plant foods, fish, and extra-virgin olive oil, is known to reduce the risk of cardiovascular disease and is safe. It may also prevent breast cancer. We hope to see more emphasis on Mediterranean diet to reduce cancer and cardiovascular disease and improve health and well-being.

Conflict of Interest Disclosures: None reported.