Dietary factors influence ovarian cancer survival rates

March 1 2010

2009 estimates projected that in the United States alone 21,550 new cases of ovarian cancer would be diagnosed and 14,600 women would die of the disease. Often diagnosed in late stages, ovarian cancer has an asymptomatic onset and a relatively low 5-year survival rate of about 45%. Consequently investigation linked to survivorship is critical. A study published in the March 2010 issue of the *Journal of the American Dietetic Association*, is among the first to evaluate possible diet associations with ovarian cancer survival. Researchers from the University of Illinois at Chicago determined that there is a strong relationship between healthy eating and prolonged survival.

The subjects included 351 women diagnosed with incident epithelial ovarian cancer who participated in a previous case-control study. The original study collected demographic, clinico-pathologic, and lifestyle-related variables including diet. Each subject completed a food frequency questionnaire where they were asked to report their usual dietary intake over the three to five years prior to their diagnosis.

To translate the diet estimates into a meaningful way, the FFQ items were assigned to the major food groups reflected in the Dietary Guidelines for Americans 2005 (DGA) including fruits, vegetables, grains, meats, dairy, fats and oils, sweets, and alcohol. Grains, meats, and dairy were further subdivided to "suggested" and "other" groups. The "suggested" subdivisions included healthier food choices, whereas the "other" subdivisions contained less desirable selections.
The authors found that higher total fruit and vegetable consumption, and higher vegetable consumption alone led to a survival advantage. Likewise, a statistically significant improvement in survival was observed for the healthier grains. Higher intakes of less-healthy meats were associated with a survival time disadvantage.

Writing in the article, Therese A. Dolecek, PhD, MS, RD, Research Associate Professor of Epidemiology, Division of Epidemiology and Biostatistics and Institute for Health Research and Policy, School of Public Health and Member, Cancer Control and Population Science Research Program, UIC Cancer Center, University of Illinois at Chicago, and colleagues state, "The study findings suggest that food patterns three to five years prior to a diagnosis of epithelial ovarian cancer have the potential to influence survival time. The pre-diagnosis food patterns observed to afford a survival advantage after an epithelial ovarian cancer diagnosis reflect characteristics commonly found in plant-based or low fat diets. These diets generally contain high levels of constituents that would be expected to protect against cancer and minimize ingestion of known carcinogens found in foods."

In an editorial commentary in the same issue, Cynthia A. Thomson, PhD, RD, Associate Professor, Nutritional Sciences, University of Arizona, Tucson, and David S. Alberts, MD, Director, Arizona Cancer Center, Tucson, write, "The authors provide new evidence that dietary factors, particularly total fruit and vegetable, red and processed meat and milk intakes, may influence ovarian cancer survival. These findings corroborate earlier work by Nagle et al and are among only a select few studies of dietary associations with ovarian cancer recurrence and/or prognosis despite a significant and growing body of literature suggesting diet may influence ovarian cancer risk."

**More information:** The article is "Pre-diagnosis Food Patterns Are Associated with Length of Survival from Epithelial Ovarian Cancer" by
Therese A. Dolecek, PhD, MS, RD, Bridget J. McCarthy, PhD, Charlotte E. Joslin, OD, PhD, Caryn E. Peterson, MS, Seijeoung Kim, PhD, MPH, Sally A. Freels, PhD, and Faith G. Davis, PhD. The commentary is "Diet and Survival After Ovarian Cancer: Where are We and What's Next?" by Cynthia A. Thomson, PhD, RD, and David S. Alberts, MD. Both appear in the Journal of the American Dietetic Association, Volume 110, Issue 3 (March 2010).

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