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Diet and survival following a diagnosis of breast cancer

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Introduction

Diet is a potentially modifiable factor which could improve prognosis following the diagnosis of breast cancer. Previous studies, which have generally examined diet prior to diagnosis of breast cancer, suggest that lower fat intake may be associated with improved survival. Diet after diagnosis is perhaps of greater relevance in the clinical setting.

Aims

To examine the relation of nutrient and food intakes to breast cancer survival, with particular attention given to the effect of total fat, vitamin A and alcohol consumption.

Comments

These results are of considerable interest but must be regarded with caution, since diet is notoriously difficult to measure and, because of the large number of analyses performed, it is possible that the findings could be due to chance. They require verification in further independent studies.

Methods

The Boston Nurses' Health Study is a prospective cohort study of 121,700 female registered nurses followed up since 1976 by means of biennial questionnaires. The subjects for this paper are those cohort members diagnosed with invasive breast cancer between 1976 and 1990 who provided adequate medical and dietary information. Follow-up was until June 1994, or death, whichever occurred first. Diet was assessed by means of food frequency questionnaires, and the index diet was taken to be that completed

most closely after the diagnosis of breast cancer. Aspects of diet such as nutrients and foods, were then assessed for their relation with time-to-death from any cause and time-to-death from breast cancer. Results were adjusted by measured covariates, including tumour size and grade, and stage of disease.

Results

Overall, 1982 cohort members diagnosed with invasive breast cancer were included in the analyses and 378 of these women died during the follow-up period. The effects of over 80 foods and nutrients were examined. On multivariate analysis, no significant association between dietary fat intake and death from any cause was found. Higher protein intake was associated with significantly lower mortality (highest versus lowest quintile, relative risk (RR) 0.65, 95% confidence interval 0.47-0.88). No significant association was found between mortality and intake of red meat, vitamin A, or alcohol.

Discussion

The published data regarding the effect of nutrients other than fat and specific foods on survival of women with breast cancer are limited. The evidence presented in this paper is therefore preliminary and requires corroboration with further follow-up and additional studies. Because little information was available on the treatment the women were receiving, it is possible that differences in diet may reflect pre-existing differences in health status, rather than cause improved survival directly. In spite of these limitations, the current findings provide hope that dietary modifications after the diagnosis of breast cancer may improve survival.

References

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