Abstract


Specialty supplements and breast cancer risk in the VITamins And Lifestyle (VITAL) Cohort.

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BACKGROUND: Use of nonvitamin, nonmineral "specialty" supplements has increased substantially over recent decades. Several supplements may have anti-inflammatory or anticancer properties. Additionally, supplements taken for symptoms of menopause have been associated with reduced risk of breast cancer in two case-control studies. However, there have been no prospective studies of the association between the long-term use of these supplements and breast cancer risk.

METHODS: Participants were female members of the VITamins And Lifestyle (VITAL) Cohort. Postmenopausal women, ages 50 to 76 years, who were residents of western Washington State, completed a 24-page baseline questionnaire in 2000 to 2002 (n = 35,016). Participants were queried on their recency (current versus past), frequency (days/week), and duration (years) of specialty supplement use. Incident invasive breast cancers (n = 880) from 2000 to 2007 were obtained from the Surveillance, Epidemiology, and End Results registry. Multivariable-adjusted hazards ratios (HR) and 95% confidence intervals (95% CI) were estimated by Cox proportional hazards models.

RESULTS: Current use of fish oil was associated with reduced risk of breast cancer (HR, 0.68; 95% CI, 0.50-0.92). Ten-year average use was suggestive of reduced risk (P trend = 0.09). These results held for ductal but not lobular cancers. The remaining specialty supplements were not associated with breast cancer risk. Specifically, use of supplements sometimes taken for menopausal symptoms (black cohosh, dong quai, soy, or St. John’s wort) was not associated with risk.

CONCLUSIONS: Fish oil may be inversely associated with breast cancer risk. Fish oil is a potential candidate for chemoprevention studies. Until that time, it is not recommended for individual use for breast cancer prevention.

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