Milk and other dairy foods in relation to prostate cancer recurrence: Data from the cancer of the prostate strategic urologic research endeavor (CaPSURE™).

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BACKGROUND: High-fat dairy, particularly whole milk, in healthy men may increase risk of aggressive prostate cancer. However, data are limited regarding dairy after prostate cancer diagnosis.

METHOD: We conducted a prospective study among 1334 men with non-metastatic prostate cancer in the Cancer of the Prostate Strategic Urologic Research Endeavor. Men answered a food frequency questionnaire in 2004-2005 (median 2 years after diagnosis) and were followed until 2016 for recurrence, defined as: prostate cancer death, bone metastases, biochemical recurrence, or secondary treatment. Multivariate Cox proportional hazards regression was used to calculate hazards ratios (HR) and 95% confidence intervals (CI) for associations between whole and low-fat milk; total, high-fat, and low-fat dairy; and other dairy items and risk of recurrence.

RESULTS: During a median follow-up of 8 years, we observed 137 events. Men who consumed >4 servings/week versus 0-3 servings/month of whole milk had an 73% increased risk of recurrence (HR: 1.73; 95%CI: 1.00, 2.98; P-value = 0.04). Body mass index (BMI) modified the association (P-interaction = 0.01). Among men with a BMI ≥27 kg/m², >4 servings/week versus 0-3 servings/month of whole milk was associated with a 3-fold higher risk of recurrence (HR: 2.96; 95%CI: 1.58, 5.54; P-value < 0.001). No association was seen in men with BMI <27 kg/m². Low-fat milk and other dairy foods were not associated with recurrence.

CONCLUSION: In conclusion, whole milk consumption after prostate cancer diagnosis was associated with increased risk of recurrence, particularly among very overweight or obese men. Men with prostate cancer who choose to drink milk should select non-fat or low-fat options.

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