Poster Topical Area: Nutritional Epidemiology

Location: Hall D

Poster Board Number: 831

P20-163 - Dairy product consumption and colorectal cancer risk in the United States

Monday, Jun 11 8:00 AM – 3:00 PM

Objective: Current evidence suggests an inverse association between total dairy product consumption and colorectal cancer risk; however, evidence on associations with dairy products by fat content or fermentation is limited. We conducted a prospective analysis of associations between dairy consumption and colorectal cancer risk using the data from the Prostate, Lung, Colorectal and Ovarian Cancer Screening Trial (PLCO) cohort.

Methods: Pre-diagnostic dairy product consumption was assessed through a validated Diet History Questionnaire. Incident colorectal cancer was ascertained through study's screening visits, local cancer registries, or self-reports. Only pathologically-verified cases were included in the analysis. Multivariate Cox regression model was used to estimate hazard ratio (HR) and 95% confidence intervals (CI) for associations between quartiles of dairy product consumption and colorectal cancer risk, adjusting for colorectal cancer risk factors and trial arm.

Results: Among 101,677 participants (aged 54-83 years), 1,033 colorectal cancer cases accrued during the follow-up (median=12.5 years). Total dairy consumption was inversely associated with colorectal cancer risk (HR=0.77; 95% CI=0.65-0.92 comparing the highest with lowest quartile; P-trend<0.01). When dairy consumption was grouped by fat content, an inverse association was observed for low-fat dairy consumption (HR=0.76; 95% CI=0.64-0.90; P-trend<0.01), but not for high-fat dairy consumption (HR=0.96; 95% CI=0.80-1.14; P-trend=0.47). Furthermore, fermented dairy consumption was inversely associated with colorectal cancer risk (HR=0.78; 95% CI=0.64-0.94; P-trend<0.01), but there was no association with non-fermented dairy consumption (HR=0.87; 95% CI=0.73-1.03; P-trend=0.14).

Conclusions: Our findings support a protective effect of dairy product consumption, especially low-fat and fermented dairy products, on colorectal cancer.

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