

Egg, red meat, and poultry intake and risk of lethal prostate cancer in the prostate specific antigen-era: incidence and survival

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Abstract

Red and processed meat may increase risk of advanced prostate cancer. Data on post-diagnostic diet and prostate cancer are sparse, but post-diagnostic intake of poultry with skin and eggs may increase risk of disease progression. Therefore, we prospectively examined total, unprocessed, and processed red meat, poultry, and eggs in relation to risk of lethal prostate cancer (e.g. men without cancer at baseline who developed distant organ metastases or died from prostate cancer during follow-up) among 27,607 men followed from 1994-2008. We also performed a case-only survival analysis to examine post-diagnostic consumption of these foods and risk of lethal prostate cancer among the 3,127 men initially diagnosed with non-metastatic prostate cancer during follow-up. In the incidence analysis, we observed 199 events during 306,715 person-years. Men who consumed 2.5 or more eggs per week had an 81% increased risk of lethal prostate cancer compared to men who consumed less than 0.5 eggs per week (HR: 1.81; 95% confidence interval (CI): 1.13, 2.89; p-trend: 0.01). In the case-only survival analysis, we observed 123 events during 19,354 person-years. There were suggestive, but not statistically significant, positive associations between post-diagnostic poultry (HR ≥ 3.5 vs. <1.5 servings per week: 1.69; 95%CI: 0.96, 2.99; p-trend: 0.07) and post-diagnostic processed red meat (HR ≥ 3 vs. <0.5 servings per week: 1.45; 95%CI: 0.73, 2.87; p-trend: 0.08) and risk of progression of localized prostate cancer to lethal disease. In conclusion, consumption of eggs may increase risk of developing a lethal-form of prostate cancer among healthy men.

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