The Use of Aspirin and the Risk of Mortality in Patients with Prostate Cancer.

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Abstract

PURPOSE: The association between the use of aspirin and mortality in patients with prostate cancer remains uncertain. We determine whether the use of aspirin in patients with prostate cancer is associated with a decreased risk of prostate cancer mortality and all cause mortality.

MATERIALS AND METHODS: Using the United Kingdom National Cancer Data Repository, Clinical Practice Research Datalink and associated databases, we identified a cohort of men with nonmetastatic prostate cancer between 1998 and 2009, followed until 2012. Cox proportional hazards models were used to estimate adjusted HRs with 95% CIs of mortality outcomes associated with post-diagnostic use of aspirin defined as a time-varying exposure. Effect modification by pre-diagnostic aspirin use was also assessed.

RESULTS: The cohort included 11,779 men followed for 5.4 years (SD 2.9). Post-diagnostic aspirin use was associated with an increased risk of prostate cancer mortality (HR 1.46, 95% CI 1.29-1.65) and all cause mortality (HR 1.37, 95% CI 1.26-1.50). These increased risks were restricted to patients initiating aspirin after the prostate cancer diagnosis (HR 1.84, 95% CI 1.59-2.12, and HR 1.70, 95% CI 1.53-1.88, respectively), and not in patients who were already exposed to aspirin before the diagnosis (HR 0.97, 95% CI 0.81-1.16 and HR 0.98, 95% CI 0.87-1.18, respectively).

CONCLUSIONS: The post-diagnostic use of aspirin is not associated with a decreased risk of prostate cancer outcomes. Increased risks were restricted to patients initiating these drugs after their diagnosis, suggesting a noncausal association.

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KEYWORDS: aspirin; mortality; prognosis; prostatic neoplasms

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