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Use of Low-Dose Aspirin and Mortality After Prostate Cancer Diagnosis: A Nationwide Cohort Study.

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BACKGROUND: Recent studies suggest that aspirin use may improve survival in patients with prostate cancer.

OBJECTIVE: To assess the association between postdiagnosis use of low-dose aspirin and prostate cancer mortality.

DESIGN: Nationwide cohort study.

SETTING: Denmark.

PATIENTS: Men with incident prostate adenocarcinoma between 2000 and 2011.

MEASUREMENTS: Nationwide registry data on tumor characteristics, drug use, primary prostate cancer therapy, comorbidity, and socioeconomic parameters. Postdiagnosis use of low-dose aspirin (75 to 150 mg) was defined as 2 or more prescriptions filled within 1 year after prostate cancer diagnosis. Follow-up started 1 year after prostate cancer diagnosis. In secondary analyses, low-dose aspirin use was assessed within exposure periods of 5 or 7.5 years after prostate cancer diagnosis.

RESULTS: Of 29 136 patients (median age, 70 years), 7633 died of prostate cancer and 5575 died of other causes during a median follow-up of 4.9 years (interquartile range, 3.1 to 7.2 years), through 2015. Postdiagnosis low-dose aspirin use was associated with adjusted hazard ratios (HRs) of 0.95 (95% CI, 0.89 to 1.01) for prostate cancer-specific mortality and 1.12 (CI, 1.05 to

1.20) for other-cause mortality. The secondary analyses showed that prostate cancer mortality was slightly reduced with low-dose aspirin use after the 5-year (HR, 0.91 [CI, 0.83 to 1.01]) and 7.5-year (HR, 0.84 [CI, 0.72 to 0.97]) postdiagnosis exposure periods, notably among patients filling prescriptions for a large quantity of low-dose aspirin tablets during the 7.5-year period.

LIMITATIONS: Data on over-the-counter aspirin use were unavailable. Some residual confounding was possible as a result of incomplete data on some prognostic factors.

CONCLUSION: The study did not support an overall effect of postdiagnosis low-dose aspirin use on prostate cancer mortality. However, results for extended exposure periods suggest that low-dose aspirin use might be inversely associated with prostate cancer mortality after 5 years from cancer diagnosis.

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