Mortality and incidence of new primary cancers in men with prostate cancer: A Danish population-based cohort study.

Cronin-Fenton DP, Antonsen S, Cetin K, Daniels A, Borre M, Acquavella J, Lash TL.
Department of Clinical Epidemiology, Aarhus University Hospital, Aarhus, Denmark. Electronic address: dc@dce.au.dk.

Abstract

Background: Prostate cancer (PC) survivors may have an increased risk of new primary cancers (NPCs) due to shared risk factors or PC-directed treatments. Methods: Using Danish registries, we conducted a cohort study of men with (n=30,220) and without PC (n=151,100) (comparators), matched 1:5 on age and PC diagnosis/index date. We computed incidence rates of NPCs per 10,000 person years (PY) and associated 95% confidence intervals (CI), and used Cox proportional hazards regression to compute hazard ratios (HRs) and 95%CI, adjusting for comorbidities. In order to obviate any impact of shorter survival among prostate cancer patients, we censored comparator patients when the matched prostate cancer patient died or was censored. Results: Follow-up spanned 113,487PY and 462,982PY in the PC and comparison cohorts, respectively. 65% of the cohorts were aged >70 years at diagnosis. Among PC patients, 51% had distant/unspecified stage, and 63% had surgery as primary treatment. The PC cohort had lower incidence of NPCs than their comparators. The adjusted HR of NPC among men with PC versus the comparators was 0.84 (95%CI=0.80, 0.88). Lowest HRs were among older men, those with distant stage, and were particularly evident for cancers of the brain, liver, pancreas, respiratory, upper gastrointestinal, and urinary systems. Conclusions: We find no evidence of an increased risk of NPCs among men with PC. The deficit of NPCs among men with PC may be a true effect but is more likely due to lower levels of risk factors (e.g., smoking) in PC patients versus comparators, clinical consideration of cancers at new organs as metastases rather than new primaries, or under-recording/under-reporting of NPCs among PC patients.

Copyright © 2013 Elsevier Ltd. All rights reserved.

KEYWORDS: Cancer epidemiology, Cohort study, Incidence rate, New primary cancer, Prostate cancer

PMID: 23830884 [PubMed - as supplied by publisher]