

Hormonal Therapy After Prostatectomy May Increase Cardiovascular Death

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Hormonal Therapy After Prostatectomy May Increase Cardiovascular Death

Men who receive androgen-deprivation therapy (ADT) after undergoing prostatectomy for prostate cancer may be at increased risk for cardiovascular death, reports an industry-funded study in the Journal of the National Cancer Institute.

Researchers examined outcomes among nearly 5000 patients who had been treated for localized prostate cancer; two-thirds had undergone radical prostatectomy, while the rest received nonsurgical therapy. Overall, 20% also received ADT (median duration, 4 months).

During a median follow-up of 4 years, ADT use was associated with increased risk for cardiovascular death among prostatectomy patients (adjusted hazard ratio, 2.6). For patients treated nonsurgically, a higher 5-year estimate of cardiovascular death with ADT use, observed only in patients 65 or older, did not achieve statistical significance.

The authors say their findings "underscore the importance of careful cardiovascular evaluation and intervention before initiating ADT in patients with localized prostate cancer."

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Androgen Deprivation Therapy for Localized Prostate Cancer and the Risk of Cardiovascular Mortality

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Background: We investigated whether androgen deprivation therapy (ADT) use is associated with an increased risk of death from cardiovascular causes in patients treated for localized prostate cancer.

Methods: From the Cancer of the Prostate Strategic Urologic Research Endeavor database, data on 3262 patients treated with radical prostatectomy and 1630 patients treated with external beam radiation therapy, brachytherapy, or cryotherapy for localized prostate cancer were included in this analysis. Competing risks regression analyses were performed to assess whether use of ADT was associated with a shorter time to death from cardiovascular causes after controlling for age (as a continuous variable) and the presence of baseline cardiovascular disease risk factors. All tests for statistical significance were two–sided.

Results: The median follow–up time was 3.8 years (range = 0.1–11.3 years). Among the 1015 patients who received ADT, the median duration of ADT use was 4.1 months (range = 1.0–32.9 months). In a competing risks regression analysis that controlled for age and risk factors for cardiovascular disease, both ADT use (adjusted hazard ratio [HR] = 2.6; 95% confidence interval [CI] = 1.4 to 4.7; P = .002) and age (adjusted HR = 1.07; 95% CI = 1.02 to 1.1; P = .003) were associated with statistically significantly increased risks of death from cardiovascular causes in patients treated with radical prostatectomy. Among patients 65 years or older treated with radical prostatectomy, the 5–year cumulative incidence of cardiovascular death was 5.5% (95% CI = 1.2% to 9.8%) in those who received ADT and 2.0% (95% CI = 1.1% to 3.0%) in those who did not. Among patients 65 years or older treated with external beam radiation therapy, brachytherapy, or cryotherapy, ADT use was associated with a higher cumulative incidence of death from cardiovascular causes, but the difference did not reach statistical significance.

Conclusions: The use of ADT appears to be associated with an increased risk of death from cardiovascular causes in patients undergoing radical prostatectomy for localized prostate cancer.

CONTEXT AND CAVEATS

Prior knowledge

Androgen deprivation therapy (ADT) is increasingly being used in

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combination with local therapy to treat patients with high-risk localized prostate cancer. However, ADT can lead to conditions that are included in the metabolic syndrome, which increases the risk of coronary artery disease.

Observational retrospective study using data from the Cancer of the Prostate Strategic Urologic Research Endeavor registry of patients with biopsy-proven prostate adenocarcinoma.

ADT use appears to be associated with a statistically significantly increased risk of death from cardiovascular causes among patients aged 65 years or older undergoing radical prostatectomy for localized prostate cancer. The 5-year cumulative incidence of cardiovascular death was 5.5% among patients who received ADT and 2.0% among those who did not. Among patients aged 65 years or older treated with external beam radiation therapy, brachytherapy, or cryotherapy, ADT use was associated with an increased cumulative incidence of death from cardiovascular causes, but the increase was not statistically significant.

Careful cardiovascular evaluation and intervention are advisable before initiating ADT in patients with localized prostate cancer.

The study had a relatively short follow-up with few fatal cardiovascular events observed. All possible risk factors for cardiovascular death could not be controlled for because of the study's retrospective nature.