Long-term functional outcomes after treatment for localized prostate cancer.


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Abstract

BACKGROUND: The purpose of this analysis was to compare long-term urinary, bowel, and sexual function after radical prostatectomy or external-beam radiation therapy.

METHODS: The Prostate Cancer Outcomes Study (PCOS) enrolled 3533 men in whom prostate cancer had been diagnosed in 1994 or 1995. The current cohort comprised 1655 men in whom localized prostate cancer had been diagnosed between the ages of 55 and 74 years and who had undergone either surgery (1164 men) or radiotherapy (491 men). Functional status was assessed at baseline and at 2, 5, and 15 years after diagnosis. We used multivariable propensity scoring to compare functional outcomes according to treatment.

RESULTS: Patients undergoing prostatectomy were more likely to have urinary incontinence than were those undergoing radiotherapy at 2 years (odds ratio, 6.22; 95% confidence interval [CI], 1.92 to 20.29) and 5 years (odds ratio, 5.10; 95% CI, 2.29 to 11.36). However, no significant between-group difference in the odds of urinary incontinence was noted at 15 years. Similarly, although patients undergoing prostatectomy were more likely to have erectile dysfunction at 2 years (odds ratio, 3.46; 95% CI, 1.93 to 6.17) and 5 years (odds ratio, 1.96; 95% CI, 1.05 to 3.63), no significant between-group difference was noted at 15 years. Patients undergoing prostatectomy were less likely to have bowel urgency at 2 years (odds ratio, 0.39; 95% CI, 0.22 to 0.68) and 5 years (odds ratio, 0.47; 95% CI, 0.26 to 0.84), again with no significant between-group difference in the odds of bowel urgency at 15 years.

CONCLUSIONS: At 15 years, no significant relative differences in disease-specific functional outcomes were observed among men undergoing prostatectomy or radiotherapy. Nonetheless, men treated for localized prostate cancer commonly had declines in all functional domains during 15 years of follow-up. (Funded by the National Cancer Institute.).