



Effects of testosterone therapy on prostate cancer

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The field of clinical prostate cancer research is an exercise in balance. Functional outcomes—such as erectile dysfunction and urinary incontinence—are weighed against oncologic outcomes. In deciding whether to recommend active surveillance versus active treatment, we balance the patient's age, comorbidity, the severity of their cancer, and their personal preferences. Likewise, in considering whether to give testosterone therapy to men with both hypogonadism and prostate cancer, we navigate the tightrope with extreme caution. As men age, the prevalence of both hypogonadism and prostate cancer both increase and seeing men in the clinic with both conditions is not uncommon. Due to the long-believed notion that testosterone therapy would cause treated prostate cancer to recur and untreated disease to flare, many hypogonadal men have gone untreated throughout the years.

Ory *et al.* (1) contribute to the growing body of evidence to suggest this longstanding notion is overstated, if not altogether incorrect. In their retrospective observational cohort study, the authors review the records of 82 men with localized prostate cancer—74 of which were treated for their disease—that received testosterone therapy for hypogonadism. Over a median follow-up time for 41 months, they showed that while PSA increased, the overall oncologic outcomes were not affected. While none of the 22 men treated with radical prostatectomy experienced biochemical recurrence (BCR), 3 men treated with radiation therapy (6%) experienced BCR. None of the 8 men on active surveillance had disease progression on subsequent prostate biopsy. Given the relatively low (6%) incidence of BCR among men treated with radiation, it is safe to say this cohort can be added to the “safe” column in

the literature.

With respect to the overall picture of that literature, however, the study fails to address the nagging void that clinicians treating, and patients experiencing, hypogonadism desperately want filled. In a recent literature review on the topic published in *European Urology* (2), Kaplan *et al.* identified 12 observational cohort series and one population-based study effectively saying the same thing at Ory *et al.* Although medico-legal and ethical concerns among some clinicians persist, the breadth of the available safety data suggest that the most important aspect of using testosterone in this context is a thorough discussion with the patient and an informed consent (3).

Each of the studies presented in that systematic review end with the same call: a randomized controlled trial to study the safety profile of testosterone therapy in men with a history of prostate cancer, treated or otherwise. From a clinical standpoint, until that study is undertaken and the data becomes available, we are left practicing the “art” of medicine, our clinical judgment.

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Footnote

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