Transcript Details

This is a transcript of an educational program. Details about the program and additional media formats for the program are accessible by visiting: https://reachmd.com/programs/frontlines-prostate-cancer/reevaluating-testosterone-a-paradigm-shift-in-prostate-cancer-treatment/32216/

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Reevaluating Testosterone: A Paradigm Shift in Prostate Cancer Treatment

Announcer:
Welcome to *On the Frontlines of Prostate Cancer* on ReachMD. On this episode, we'll hear from Dr. Mohit Khera, who will be discussing the use of testosterone after the treatment of localized prostate cancer. Dr. Khera is a Professor in the Scott Department of Urology at Baylor College of Medicine, where he also holds the F. Brantley Scott Chair. Here he is now.

Dr. Khera:
Over the past two decades, there's been a complete paradigm shift in the way we think about testosterone and prostate cancer. When I first finished my fellowship back in 2007, we were taught that testosterone was dangerous for prostate cancer. Shortly after that, we were starting to become more and more comfortable, believing that maybe testosterone could be safe in men with a history of prostate cancer. And over the past decade, we're really entering an era where we're finding that testosterone may not only be therapeutic, but it may be beneficial in the treatment of prostate cancer. So really, the paradigm has completely shifted. There is some data now to suggest that testosterone may be protective against biochemical recurrence.

The prostate saturation model really offers greater insight in how PSAs change with testosterone levels. We were taught that as we give more and more testosterone, the PSA continues to go up. That is a linear model, but that is not true. At some point, the PSA will plateau. So many of us believe that the saturation point is roughly around 250 ng/dL. We showed that in one of our earlier papers in 2011. Others have actually corroborated those findings as well—that roughly around 250 ng/dL, the prostate saturates—suggesting that if you take the testosterone level higher to 2,000 or 3,000 ng/dL, you should not see any significant increase in prostate PSA or prostate size. And those studies have been done. Actually, Shelly Bernstein earlier on gave men very high doses of testosterone, took their levels all the way up to 2,500, and saw no changes in PSA or prostate growth. So again, we do know that the Prostate Saturation Model is a very helpful model in understanding these PSA changes.

But conversely, we all know that if you give a man Lupron and you bring his testosterone level down, particularly below 250 ng/dL, those patients do see a significant decline in PSA. And so where this becomes really important is when you're starting a man on testosterone whose starting testosterone level is, say, at 180 ng/dL. That man's testosterone is below the saturation point, so when I start that man on testosterone supplementation, I expect to see a rise in the PSA. And most would say that rise is roughly about 0.3 ng/dL, but we do expect a rise. If I have a man who starts his testosterone starting at 290 ng/dL and I start him on testosterone supplementation, I don't expect to see that much of a rise in PSA. So the saturation model really helps us understand at what levels of testosterone we should be seeing changes in PSA once we initiate therapy.

Announcer:
That was Dr. Mohit Khera sharing considerations for using testosterone after localized prostate cancer treatment. To access this and other episodes in our series, visit *On the Frontlines of Prostate Cancer* on ReachMD.com, where you can Be Part of the Knowledge. Thanks for listening!