Androgen Deprivation Therapy and Dose-Escalated Radiotherapy for Intermediate- and High-Risk Prostate Cancer: Sign of Changing Times?

To the Editor Using the National Cancer Data Base (NCDB) 2004 through 2012, Falchook and colleagues1 showed that while the adoption of dose-escalated radiation therapy (RT) for National Comprehensive Cancer Network intermediate- and high-risk prostate cancer increased to 90% of all external-beam RT recipients, the use of androgen deprivation therapy (ADT) was more heterogeneous, and influenced by geographic location of treating facility rather than patient comorbidity concerns. We noted that Charlson-Deyo comorbidity scores in the NCDB are categorized as 0, 1, and greater than 1 (not 2).2 More importantly, while we appreciate the findings noted by the authors, we wish to highlight some relevant areas of concern.

The definition used to identify primary ADT with RT in the study has not been stated; it is not clear whether patients receiving salvage ADT (the standard treatment for recurrent disease in patients who have undergone RT) were excluded from the present study. While the NCDB does not have a specific variable to identify primary from salvage treatment, it does permit identification of time of initiation of any given therapy.2 We repeated the analyses performed by Falchook et al3 using NCDB 2004 through 2012 data, focusing on patients with National Comprehensive Cancer Network intermediate (n = 65,716) and high-risk prostate cancer (n = 47,214) treated with external-beam RT without brachytherapy. Patients initiating ADT within 180 days of RT were considered to have received ADT as a part of primary treatment. The use of dose-escalated RT increased almost uniformly for both intermediate- and high-risk prostate cancer (from approximately 50% to 78%); use of RT with adjuvant/neoadjuvant ADT increased for high-risk prostate cancer and decreased for intermediate-risk prostate cancer between 2004 and 2012. Multivariate logistic regression showed dose-escalated RT to be significantly associated with receipt of ADT for both intermediate- and high-risk prostate cancer (odds ratio, 1.15 and 1.24, respectively; both P < .001), contrary to what has been reported by Falchook et al.2 This could be due to the 6-month cutoff used to identify patients who received ADT as a part of primary treatment (along with RT), whereas Falchook et al1 did not use any time-dependent cutoff.

The widespread diffusion of dose-escalated RT for intermediate- and high-risk prostate cancer was likely driven by the putative oncologic benefit of higher doses of RT. Indeed, recent trials,3 and an NCDB-based study,4 have demonstrated that higher doses of RT translate into greater cancer-specific and overall survival. Furthermore, we noted that patients receiving dose-escalated RT were more likely to receive ADT; level 1 evidence again supports the survival benefit of this approach in both intermediate- and high-risk disease.3 Data regarding oncologic benefit of RT plus ADT for intermediate-risk prostate cancer was published only in the latter half of the past decade, and its effects may become apparent in the next few years.3 While we agree with Falchook and colleagues1 that regional preferences often play a role in determining treatment patterns, our findings highlight the increasing relevance of level 1 evidence in affecting nationwide practices.

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Published Online: November 23, 2016. doi:10.1001/jamaoncol.2016.3987

Conflict of Interest Disclosures: Dr Abdollah is a consultant for GenomeDx Biosciences. No other disclosures are reported.