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European Association of Urology



## Letter to the Editor

**Re: Baris Turkbey, Andrew B. Rosenkrantz, Masoom A. Haider, et al. Prostate Imaging Reporting and Data System Version 2.1: 2019 Update of Prostate Imaging Reporting and Data System Version 2. Eur Urol 2019;76:340–51**

I read with great interest the article by Turkbey and colleagues [1] on modification of Prostate Imaging-Reporting and Data System version 2 (PI-RADS v2) to improve inter-reader variability and further simplify PI-RADS assessment of prostate magnetic resonance imaging (MRI). However, I was confused by the PI-RADS v2.1 assessment for the transition zone (TZ) after reading the article.

First, a T2-weighted imaging (T2WI) score of 3 is upgraded to an overall PI-RADS score of 4 if the diffusion-weighted imaging (DWI) score is 5 according to both PI-RADS v2.1 [1] and PI-RADS v2 [2]. A DWI score of 5 is defined as a lesion showing the same signal intensities and apparent diffusion coefficient (ADC) values as a DWI score of 4 but of  $\geq 1.5$  cm in size or with definite extracapsular extension or other invasive features. If a 2-cm TZ lesion with a T2WI score of 3 is markedly hypointense on ADC images and markedly hyperintense on high-*b*-value DWI, both PI-RADS v2.1 and PI-RADS v2 classify this as an overall PI-RADS score of 4. However, this should be PI-RADS 5 because the size cut-off is 1.5 cm when differentiating PI-RADS 4 and 5. In addition, if a TZ lesion with a T2WI score of 3 shows extracapsular extension, how can we categorize this as PI-RADS 4?

Second, PI-RADS v2.1 adds a new change to PI-RADS v2 whereby a T2WI score of 2 is upgraded to an overall PI-RADS score of 3 if the DWI score is 4 or 5. However, this modification also brings up the same problem as above.

I hope that the responses from Dr. Turkbey and colleagues will help readers who want to better understand PI-RADS v2.1 and will be useful for those who wish to improve their interpretation of prostate MRI.

**Conflicts of interest:** The author has nothing to disclose.

## References

- [1] Turkbey B, Rosenkrantz AB, Haider MA, et al. Prostate Imaging Reporting and Data System Version 2.1: 2019 Update of Prostate Imaging Reporting and Data System Version 2. *Eur Urol* 2019;76:340–51.
- [2] Weinreb JC, Barentsz JO, Choyke PL, et al. PI-RADS Prostate Imaging-Reporting and Data System: 2015, version 2. *Eur Urol* 2016;69:16–40.

Byung Kwan Park\*

*Department of Radiology, Samsung Medical Center, Sungkyunkwan University School of Medicine, Seoul, Republic of Korea*

\*Department of Radiology, Samsung Medical Center, Sungkyunkwan University School of Medicine, 81 Irwon-ro, Gangnam-ku, Seoul 06351, Republic of Korea. Tel. +82 2 34106457; Fax: +82 2 34100084. E-mail address: [rapark@skku.edu](mailto:rapark@skku.edu).

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