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September-October 2016

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Volume 36, Issue 5

Genitourinary Imaging

PI-RADS Version 2: A Pictorial Update

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Received: August 30, 2015

Accepted: February 10, 2016

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The Prostate Imaging Reporting and Data System (PI-RADS) is the result of an extensive international collaborative effort. PI-RADS provides a comprehensive yet practical set of guidelines for the interpretation and reporting of prostate multiparametric magnetic resonance (MR) imaging that will promote the use of this modality for detecting clinically significant prostate cancer. The revised PI-RADS version (PI-RADS version 2) introduces important changes to the original system used for assessing the level of suspicion for clinically significant cancer with multiparametric MR imaging. For peripheral zone abnormalities in PI-RADS version 2, the score obtained from the apparent diffusion coefficient (ADC) map in combination with diffusion-weighted imaging (DWI) performed with high *b* values (≥ 1400 sec/mm²) is the dominant parameter for determining the overall level of suspicion for clinically significant cancer. For transition zone abnormalities, the score obtained from T2-weighted MR imaging is dominant for overall lesion assessment. Dynamic contrast material-enhanced MR imaging has ancillary roles in the characterization of peripheral zone lesions considered equivocal for clinically significant cancer on the basis of the DWI-ADC combination and in the detection of lesions missed with other multiparametric MR pulse sequences. Assessment with dynamic contrast-enhanced MR imaging is also simplified, being considered positive or negative on the basis of qualitative evaluation for a focal area of rapid enhancement matching an abnormality on DWI-ADC or T2-weighted MR images. In PI-RADS version 2, MR spectroscopic imaging is not incorporated into lesion assessment. In this article, a pictorial overview is provided of the revised PI-RADS version 2 assessment categories for the likelihood of clinically significant cancer. PI-RADS version 2 is expected to evolve with time, with updated versions being released as experience in the use of PI-RADS version 2 increases and as new scientific evidence and technologies emerge.

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