

## AUTHOR'S REPLY

Reply to: Sosnowski R, Zagrodzka M, Borkowski T. The limitations of multiparametric magnetic resonance imaging (mpMRI) also must be borne in mind. *Cent European J Urol.* 2016; 69: 22-23.

Marc A. Bjurlin<sup>1</sup>, Neil Mendhiratta<sup>2</sup>, James S. Wysock<sup>3</sup>, Samir S. Taneja<sup>3</sup>

<sup>1</sup>*Division of Urology, Department of Surgery, New York University Lutheran Medical Center, New York University Langone Health System, NY, USA*

<sup>2</sup>*School of Medicine, New York University Langone Medical Center, NY, USA*

<sup>3</sup>*Division of Urologic Oncology, Department of Urology, New York University Langone Medical Center, NY, USA*

The Authors of the comment raise concerns regarding limitations of DWI and DCE sequences of mpMRI of the prostate emphasizing image artifacts. However, using optimized protocols, expert centers have achieved high sensitivity on imaging [1]. An enema is used prior to endorectal coil examinations, so that stool in the rectum will not interfere with coil placement. If an endorectal coil is not used, the presence of air and/or stool in the rectum may induce artifactual distortion that can compromise DWI quality. The PI-RADS guidelines describe various maneuvers to address this including use of an enema and/or laxatives prior to the exam [2]. If an endorectal coil is not used and the rectum contains air on the initial MR images, the patient may benefit from performing the mpMRI exam in the prone position or to decompress the rectum using suction through a small catheter. Although the Authors highlight artifacts from intestinal

motility, prostate spasms, and muscle movements, the PI-RADS guidelines do not formally recommend the use of antispasmodics [2]. Antispasmodic agents such as glucagon, scopolamine butylbromide, or sublingual hyoscyamine may increase cost, have the potential for adverse drug reactions, and can make some patients nauseous. Consequently it is not clear whether they should be used routinely. Hip prosthesis remains a concern for artifact production, however new reduced field-of-view excitation schemes for diffusion weighted imaging decreases susceptibility artifact, resulting in higher contrast between tumor and healthy prostate tissue [3]. The role of mpMRI and MRI-U/S fusion targeted prostate biopsy will continue to evolve as clinical experience and scientific data accrue. The continuous collaboration between radiologists and urologists will remain paramount in establishing and guiding its clinical utility.

## References

1. Turkbey B, Mani H, Shah V, et al. Multiparametric 3T prostate magnetic resonance imaging to detect cancer: histopathological correlation using prostatectomy specimens processed in customized magnetic resonance imaging based molds. *J Urol.* 2011; 186: 1818-1824.
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.
3. Korn N, Kurhanewicz J, Banerjee S, Starobinets O, Saritas E, Noworolski S. Reduced-FOV excitation decreases susceptibility artifact in diffusion-weighted MRI with endorectal coil for prostate cancer detection. *Magn Reson Imaging.* 2015; 33: 56-62. ■