ASO Author Reflections: A Pair of Nomograms to Choose Appropriate Prostate Biopsy Strategy

Bi-Ming He, MD^{1,2}, Ying-Hao Sun, MD², and Hai-Feng Wang, MD^{1,2}

¹Department of Urology, Shanghai East Hospital, Tongji University School of Medicine, Shanghai, China; ²Department of Urology, Shanghai Changhai Hospital, Second Military Medical University, Shanghai, China

PAST

Targeted biopsy (TB), based on the multiparametric magnetic resonance imaging (mpMRI) result, has been deemed better than traditional transrectal ultrasonography (TRUS)-guided systematic biopsy (SB) in detecting clinically significant prostate cancer (csPCa).¹ Combined application of these two biopsy approaches will achieve a higher cancer detection rate than using TB alone;² however, in some cases, detecting tumors by TB only is sufficient and adding SB may result in the diagnosis being repeated and may bring unexpected complications. Should we perform TB or SB, or should we choose a combination of the two methods? The optimal biopsy strategy may be different for each case.

PRESENT

Although several studies developed nomograms to predict the probability of PCa or csPCa, these studies only used one biopsy strategy, for which the ultimate goal was to determine the risk of cancer and thus determine whether the patient should receive a biopsy or not.^{3,4}

Unlike those nomograms, the present paired nomograms in our study⁵ have been developed based on different biopsy strategies, aiming not merely at the determination of biopsy. More importantly, the nomogram also aims at the further choice of optimal biopsy strategy (TB only or TB combined with SB) for different patients.

FUTURE

The data in this study⁵ are from a single center only, and the nomograms we developed should be further validated in other institutes.

DISCLOSURES Bi-Ming He, Ying-Hao Sun, and Hai-Feng Wang report no conflicts of interest.

REFERENCES

1. Kasivisvanathan V, Rannikko AS, Borghi M, et al. MRI-targeted or standard biopsy for prostate-cancer diagnosis. *N Engl J Med*. 2018;378(19):1767–77.
2. Sathianathan NJ, Warlick CA, Weight CJ, et al. A clinical prediction tool to determine the need for concurrent systematic sampling at the time of magnetic resonance imaging-guided biopsy. *BJU Int*. 2019;123(4):612–17.
3. van Leeuwen PJ, Hayen A, Thompson JE, et al. A multiparametric magnetic resonance imaging-based risk model to determine the risk of significant prostate cancer prior to biopsy. *BJU Int*. 2017;120(6):774–81.
4. Truong M, Wang B, Gordetsky JB, et al. Multi-institutional nomogram predicting benign prostate pathology on magnetic resonance/ultrasound fusion biopsy in men with a prior negative 12-core systematic biopsy. *Cancer*. 2018;124(2):278–85.
5. He B-M, Shi Z-K, Li H-S, et al. A novel prediction tool based on multiparametric magnetic resonance imaging to determine the biopsy strategy for clinically significant prostate cancer in patients with PSA levels less than 50 ng/ml. *Ann Surg Oncol*. 2019. <https://doi.org/10.1245/s10434-019-08111-2>.

ASO Author Reflections is a brief invited commentary on the article “A Novel Prediction Tool Based on Multiparametric Magnetic Resonance Imaging to Determine the Biopsy Strategy for Clinically Significant Prostate Cancer in Patients with PSA Levels Less than 50 ng/ml”. *Ann Surg Oncol*. Epub 17 Dec 2019. <https://doi.org/10.1245/s10434-019-08111-2>.

© Society of Surgical Oncology 2020

First Received: 3 January 2020;

Published Online: 16 January 2020

Y.-H. Sun, MD

e-mail: sunyhsmmu@126.com

Publisher's Note Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.