



Response to “Refining the Predictive Role of T2-Weighted Imaging Features in Breast Cancer: A Hypothesis Linking Tumor Characteristics to Extreme Chemoresistance”

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We thank Dr. Jia and colleagues [1] for their interest in our article, “Association of T2-Weighted Imaging Features in Invasive Breast Cancer With Clinicopathologic Features and Neoadjuvant Treatment Outcomes,” and for their thoughtful suggestions regarding future research directions [2].

Our exploratory study was motivated by the limited data on T2-weighted imaging features—particularly quantitative T2 relaxation times—in breast cancer, as well as prior work from our group suggesting a complementary role for T2-weighted imaging in risk stratification. In an earlier study examining magnetic resonance imaging radiomic features and disease-free survival in triple-negative breast cancer, a

substantial proportion of the selected features were derived from T2-weighted imaging [3]. Although the present study had a limited sample size and did not include radiomic analysis, we hope it stimulates further investigation incorporating T2-weighted imaging.

We agree that our findings may support the hypothesis that T2 features could help identify tumors with poor chemosensitivity beyond a binary classification of pathologic complete response (pCR) versus non-pCR. As suggested, analysis of residual cancer burden would provide more informative stratification, and we appreciate Dr. Jia and colleagues [1] for highlighting this important point. However, because residual cancer burden is not routinely reported at our institution, evaluating this endpoint would require a prospective or separate investigation.

We also emphasize that our results should be interpreted with caution, given the small sample size, which limited our ability to perform multivariable analyses. Because immunohistochemical subtype is closely associated with systemic therapy selection, future studies with larger cohorts should enable subtype-specific analyses (e.g., triple-negative breast cancer) to further clarify the role of T2-weighted imaging features in risk stratification. We look forward to continued research in this area, including our own. We again thank Dr. Jia and colleagues [1] for their thoughtful comments and for contributing to the discussion of this topic.

Conflicts of Interest

The authors have no potential conflicts of interest to disclose.

Author Contributions

Conceptualization: all authors. Supervision: Vivian Youngjean Park. Writing—original draft: all authors. Writing—review & editing: Vivian Youngjean Park.

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REFERENCES

1. Cao J, Tan Y, Zhang L, Gu C, Yang H, Zhang L. Refining the predictive role of T2-weighted imaging features in breast cancer: a hypothesis linking tumor characteristics to extreme chemoresistance. *Korean J Radiol* 2026;27:599-600
2. Youn I, Roh YH, Kim MJ, Yoon JH, Kwon MR, Park VY. Association of T2-weighted imaging features in invasive breast cancer with clinicopathologic features and neoadjuvant treatment outcomes. *Korean J Radiol* 2026;27:305-317
3. Kim S, Kim MJ, Kim EK, Yoon JH, Park VY. MRI radiomic features: association with disease-free survival in patients with triple-negative breast cancer. *Sci Rep* 2020;10:3750