REPLY: Carotid Plaque-RADS A Novel Stroke Risk Classification System

We extend our gratitude for your strong support of the Carotid Plaque-RADS and for the insightful queries raised regarding our paper.1

Regarding intraplaque neovascularization, we agree on its significance and acknowledge it as an important parameter that may become even more crucial in future investigations. Intraplaque neovascularization was indeed incorporated as an "ancillary finding" of the Carotid Plaque-RADS, primarily because we perceived it to be less validated than other parameters within the Plaque-RADS categories. It is conceivable and likely that future studies—those using contrast-enhanced ultrasound and stratifying risk based on it—may lead to the transition of this feature from ancillary finding to main characteristics of this model in an updated version of Carotid Plaque-RADS. We would also like to point out that a substantial part of the Plaque- RADS work is provided within the supplemental files.

Your observation regarding "clinical interpretation of the report to have a percentage of hazard level similar to BI-RADS or TI-RADS" is indeed pivotal and should be the aim of future studies. In Supplemental Table 2, we report odds ratios and HRs for all studies that contributed to the model's formulation. It is our hope that the future application of Plaque-RADS, as well as the reclassification of prior studies using this model, will enable us to establish incremental thresholds to generate risk percentages as in BI-RADS or TI-RADS. Moreover, the Plaque-RADS score will hopefully encourage study groups of already pub- lished studies to re-stratify their data and help establish closer 95% CIs.

In contrast to the CAD-RADS 2.0 classification2 which is used to categorize coronary artery disease, we did not provide management considerations into the Plaque-RADS scoring system. Although it is conceivable that patients with a higher Plaque- RADS score will profit from intensive lipid- lowering therapy and/or carotid interventions the clinical management also depends on age, sex, symptom status, degree of stenosis, and life ex- pectancy and might even vary across different countries. Therefore, we decided to not include specific clinical recommendations in the current version of the score but with wide application of the score in future studies and with the help of data pooling we are confident that we will be able to do so in possible future versions of this score.

Once again, we thank you for your careful considerations and look forward to engaging in further constructive discussions that will undoubt- edly improve the clinical utility of the Plaque-RADS system.

REFERENCES

1. Saba L, Cau R, Murgia A, et al. Carotid Plaque-RADS: a novel stroke risk classification system. J Am Coll Cardiol Img. 2024;17(1):62–75.

2. Cury RC, Leipsic L, Abbara S, et al. CAD-RADSä 2.0 – 2022 Coronary Artery Disease-Reporting and Data System: an expert consensus document of the Society of Cardiovascular Computed Tomography (SCCT), the American Col- lege of Cardiology (ACC), the American College of Radiology (ACR), and the North America Society of Cardiovascular Imaging (NASCI). J Am Coll Cardiol Img.2022;15(11):1974–2001.