



Editorial

The RADS—Panacea or Pain?

Ravikanth Balaji

Indian J Radiol Imaging 2022;32:149–150.

The development of Reporting and Data System (RADS) began as an initiative by the American College of Radiology (ACR) to decrease interobserver report variability among radiologists and to deliver care that is “patient-centric, data-driven, and outcomes-based.”¹ RADS are mainly guidelines for lesion identification, characterization, and structured reporting.

Interpretation of follow-up imaging of patients with head and neck squamous cell carcinomas poses a great challenge. Patients undergo extensive surgical resections with composite free-flap reconstructions, altering normal anatomy, and making radiologic interpretation difficult. Chemoradiation results in soft tissue swelling, edema, and contrast enhancement from inflammation or granulation tissue, all of which may be mistaken for recurrent tumor. The Neck Imaging Reporting and Data System (NI-RADS) is a guide to report on surveillance of head and neck cancers after therapy. The categories of NI-RADS are designated as negative, low suspicion, high suspicion, and definite recurrence. In this issue, Kumar et al have analyzed the efficacy of NI-RADS rating using contrast-enhanced computed tomography (CT) in predicting local and regional recurrence of malignancies after chemoradiotherapy.² This study appears to prove that enhanced CT would suffice in assigning NI-RADS score when positron emission tomography/computed tomography (-PET/CT) is not available.

The first RADS that came into being was the Breast Imaging Reporting and Data System or BI-RADS, developed for mammography for the detection of breast cancer. Subsequently, other systems followed, TI-RADS for thyroid nodule imaging, LI-RADS for chronic liver disease and hepatocellular carcinoma imaging, Lung-RADS for lung cancer screening, and PI-RADS for prostate cancer imaging. The list keeps growing—NI-RADS (neck), O-RADS (ovarian), VI-RADS (bladder), MY-RADS (myeloma), Met-RADS (prostate), Onco-RADS, Node-RADS, Bone-RADS, Coronary-RADS, CO-RADS

(COVID-19)Whew!! Just as when we thought most pathologies and organs were covered, we find a bevy in the pipeline: PE-RADS (pulmonary embolism), MSK-RADS (soft tissue), BT-RADS (brain tumor), KI-RADS (kidney masses), Stroke-RADS.... And yet more in the offing.

Do we need them all? Are we pushing the RADS too far? When we have a plethora of RADS across organs, modalities, and pathologies, don't these overwhelm the radiologists? Are there incremental benefits to the patient or the clinician? Would the general practitioner or family physician understand these fast-evolving terminologies? Have we reached the point of diminishing gain? These are all points to ponder in the Indian setting where radiology practices are more heterogeneous than many other countries.

The use of BI-RADS has caught on in India, but other RADS systems, perhaps except for PI-RADS and LI-RADS, will take time to find their way into radiology reports consistently. The use of classification or terminology, which is unfamiliar to clinicians, does no help for patients. Clinicians have to be educated about each RADS system for such telegraphic communication to be successful. Otherwise, we are talking into the wind. Implementation might be easier at major institutions, but for these classifications to diffuse towards smaller hospitals or rural practices, the going may be tough. The *ne plus ultra* of communication might be directly discussing with the referring physician as to what the nature of lesion would be, when to follow up, and if to biopsy or not. It might be yet better if reports were discussed with patients such that they have a better understanding of their condition, assuaging anxieties to a great extent.

Does the use of RADS make a report more communicative? Not really, if we consider the wide variance in the BI-RADS category 4. Category 4b has a chance of cancer of 10 to 50% and 4c has a chance of malignancy of 50 to 95%. In terms of patient prognostication, such a wide degree of variance is unacceptable.

Address for correspondence
Ravikanth Balaji, MBBS, DMRD,
DNB, EDIR,
(e-mail: ravikanthbalaji@yahoo.
com).

DOI <https://doi.org/10.1055/s-0042-1755236>.
ISSN 0971-3026.

© 2022. Indian Radiological Association. All rights reserved.

This is an open access article published by Thieme under the terms of the Creative Commons Attribution-NonDerivative-NonCommercial-License, permitting copying and reproduction so long as the original work is given appropriate credit. Contents may not be used for commercial purposes, or adapted, remixed, transformed or built upon. (<https://creativecommons.org/licenses/by-nc-nd/4.0/>)

Thieme Medical and Scientific Publishers Pvt. Ltd., A-12, 2nd Floor, Sector 2, Noida-201301 UP, India

RADS will keep evolving over time with inclusion of functional and quantitative imaging that would be more accurate and predictive but at the same time more cumbersome for radiologists. We have all seen that with the PI-RADS v1 and 2. Many authors feel PI-RADS v1 is better than v2,³ but some do not. We are left none the wiser.

Implementing RADS in regular practice across a country like India would require considerable effort and training in standardization of protocols and structured reporting. More importantly, we need to educate more than a million clinicians on how to interpret this nomenclature. Can we have a simpler “Made in India” scoring system that will be adopted more easily in our country? By decreasing variability in radiology reports and clinical management, we can assuredly improve outcomes for patients.

I write this as one (of many) who is faced with the classic Hamletian dilemma—To RADS or not to RADS. When we look at the situation objectively, RADS are here to stay, but then, there is nothing like having discussions and multidisciplinary meetings with our colleagues to communicate precisely and clearly and plan the best treatment for a given patient. Even when a report with RADS score is sent out with an accurate clinical interpretation we still have to debate,

deliberate, and discuss, so is it worth all the effort? Dictating is easy—putting a face on those words is far from facile. I shall sign off leaving the readers to contemplate and decide what suits them best in their practices.

Although our intellect always longs for clarity and certainty, our nature often finds uncertainty fascinating.—Karl Von Clausewitz

Conflict of Interest

None.

References

- 1 American College of Radiology. Reporting and Data Systems (RADS). Accessed July 7, 2022 from: <https://www.acr.org/Clinical-Resources/Reporting-and-Data-Systems>
- 2 Kumar I, O Reza S, Chaudhary SK, Shukla RC, Mani N, Verma A. Performance of PI-RADS on CECT Alone to Predict Recurrent Head and Neck Squamous Cell Carcinoma after Chemoradiotherapy: Added Value of RECIST 1.1. *Indian J Radiol Imaging* 2022;32(02): 151–158
- 3 Schaudinn A, Gawlitza J, Mucha S, et al. Comparison of PI-RADS v1 and v2 for multiparametric MRI detection of prostate cancer with whole-mount histological workup as reference standard. *Eur J Radiol* 2019;116:180–185