



Letter to the Editor

Diagnostic performance of cCTA derived stenosis predictors to detect hemodynamic significant coronary stenosis



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With great interest, we have read the study by Yu et al. published in the august issue of *International Journal of Cardiology*. The authors investigated the diagnostic accuracy of machine learning based coronary computer tomography-derived fractional flow reserve (ML-based CT-FFR) in combination with the ration of Duke jeopardy score (DJS) and minimal lumen diameter (MLD) compared to invasive FFR [1].

While they showed that the DJS/MLD ratio has incremental value to ML-based CT-FFR, other morphological markers also correlated significantly with invasive FFR potentially serving as a gatekeeper to avoid unnecessary invasive coronary angiographies [1, 2]. Tesche et al. reported that Total Plaque Volume (TPV) and Non-Calcified Plaque Volume (NCPV), with a sensitivity of 88% and 92% and specificity of 74% and 81%, can also aid in detecting hemodynamically significant stenosis [2].

Furthermore, additional quantitative functional markers such as corrected coronary opacification (CCO) and the ratio of lesion length and fourth power of the minimal luminal diameter (LL/MLD⁴) correlate well with invasive FFR [2–4]. The study by Wang et al. showed a sensitivity and specificity for CCO of 66% and 88%, and 85% and 92% for LL/MLD⁴ [4].

This article might have benefited from including these additional morphological and quantitative functional markers.

Nonetheless, we congratulate the authors for their excellent article as it covers a prevalent and frequently discussed subject. Increasing the diagnostic accuracy of ML-based CT-FFR by combining

with DJS/MLD ratio is aiding its transition to becoming a routine gatekeeper in the everyday clinical practice.

Financial disclosure statement

All authors declare that they have no financial disclosures.

Conflict of interest

The authors report no relationships that could be construed as a conflict of interest.

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