EDITORS NOTE

Left atrial remodelling, and image-based coronary physiology

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Dear reader,

In this July issue, we do have again a great number of publications, including Commentaries. However, in addition, I would like to request your attention to two different topics that I wish to highlight here.

First, the paper by Z. Tan and Y. Yang et al. from Guangzhou and Guangdong, China entitled "Left atrial remodeling and the prognostic value of feature tracking derived left atrial strain in patients with lightchain amyloidosis: a cardiovascular magnetic resonance study" [1]. They found in a population of 87 patients that the left atrial reservoir strain derived from CMR feature-tracking (FT) provides independent and additive prognostic value for all-cause mortality in patients with light-chain cardiac amyloidosis (AL). In the Figure below, which is their Fig. 1 in the manuscript, they provide examples of four chamber view cine image, LGE image, ECV map image, LA longitudinal strain curve, and myocardium trace using CMR-FT of AL amyloid patients and healthy control subjects.

Second, I would like to highlight the paper by M. Echavarríapinto et al., from Hospital General ISSSTE, Santiago de Querétaro, México, who published the paper entitled "Diagnostic agreement of quantitative flow ratio with fractional flow reserve in a LatinAmerican population" [2]. The angio-based QFR® solution for the image-based assessment of coronary physiology, sofar has been extensively validated in European and Asian populations. However, the authors now demonstrate in a population of 66 patients and 90 vessels, for the first time, that the QFR is also associated with a high diagnostic accuracy in a Latin-American population. They found a diagnostic performance of 0.92 from the ROC-analysis. An example of the QFR-analysis from their paper is presented below in Fig. 2.

I do hope that you enjoy these highlighted papers plus all the other selected manuscripts in this July 2022 issue of the International Journal of Cardiovascular Imaging. I would also encourage again Commentaries on these and other papers.

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References

1. Tan Z, Yang Y, Wu X et al (2022) Left atrial remodeling and the prognostic value of feature tracking derived left atrial strain in patients with light-chain amyloidosis: a cardiovascular magnetic resonance study. Int J Cardiovasc Imaging. https://doi.org/10.1007/s10554-022-02534-x
2. Echavarría-Pinto M, Van de Hoef TP, Pacheco-Beltran N et al (2022) Diagnostic agreement of quantitative flow ratio with fractional flow reserve in a Latin-American population. Int J Cardiovasc Imaging. https://doi.org/10.1007/s10554-022-02547-6

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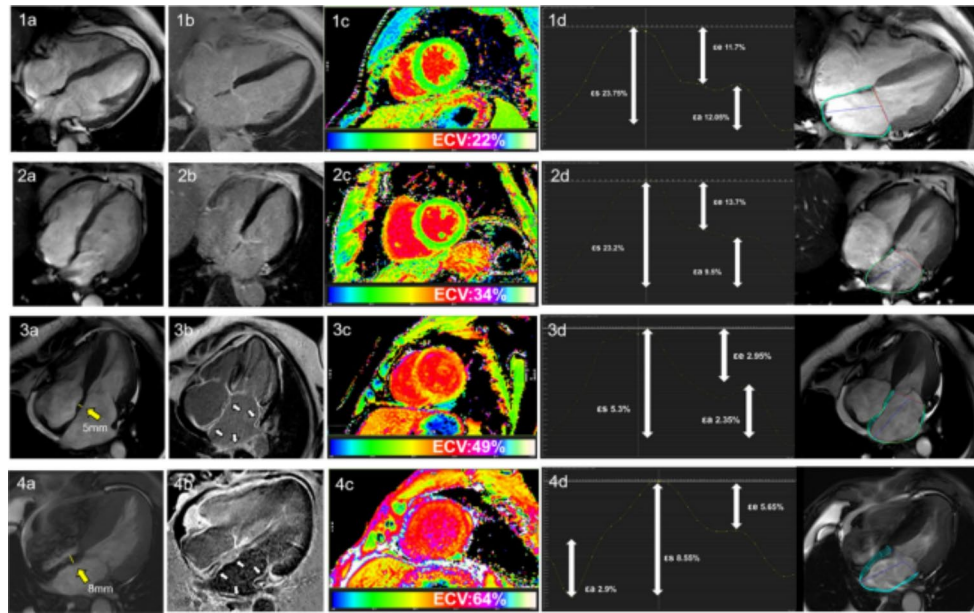
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Fig. 1 Four chamber view cine image, LGE image, ECV map image, LA longitudinal strain curve, and myocardial trace using CMR-FT of AL amyloid patients and healthy control subjects. A healthy control subject **(1- a-d)** displayed no LGE, normal ECV, and LA strains at the same slice position. A patient **(2- a-d)** in the ECV group I showed no LGE, normal LA strain but mild decreased increased ECV. A patient **(3- a-d)** in ECV group II showed subendocardial LV-LGE, increased IAS thickness (yellow arrow and line, 5 mm) with LA-LGE (white arrows), moderate increased ECV, and decreased LA strains. A patient **(4- a-d)** in ECV group III showed global LV-LGE, significant increased IAS thickness (yellow arrow and line, 8 mm) with diffuse LA-LGE (white arrows), increased ECV, and decreased LA strains, reservoir strain, conduit strain, booster strain

Fig. 2 Coronary angiography and QFR computation. A moderate stenosis in the left circumflex artery was evaluated with FFR and QFR. Panels **B** and **C** exhibits two angiographies with superimposed diameters functions, which is further described in Panel **D**. The lesion characteristics and QFR value is shown in Panel **A**. In this example the FFR value was 0.79