



Editor's choice to the april 2023 issue

Role of cardiovascular magnetic resonance in the clinical evaluation of left ventricular hypertrophy: a 360° panorama

Johan HC Reiber¹

Published online: 20 March 2023

© The Author(s), under exclusive licence to Springer Nature B.V. 2023

Dear Reader,

For this April 2023 issue, I have selected the paper by Dr Silvia Aguiar Rosa et al. from the Dept of Cardiology, Santa Marta hospital and the Heart Center at the Red Cross Hospital, both in Lisbon, Portugal under the supervision of Dr Jan Bogaert, KU Leuven in Belgium and Dr Iacopo Olivotto at the Careggi University hospital in Florence, Italy [1]. The authors are to be congratulated on such a rich publication on the CMR imaging aspects in this important disease.

My argument for this selection is the extensive description and detailed review of the factors that play a role in the development and diagnostics of left ventricular hypertrophy (LVH) as presented in this paper. LVH is a widely occurring abnormality with prevalences in a total population as high as 14.9% for men and 9.1% for women. Cardiovascular magnetic resonance (CMR) has assumed a

central role in the differential diagnosis of left ventricular hypertrophy, by providing a detailed evaluation of the myocardium with the techniques of parametric imaging allowing more refined tissue characterization, by the additional measurements of native T1, extracellular volume and T2. This review summarizes how CMR may depict the pathological features beyond LV morphology, by performing a parallelism between pathophysiological features and imaging findings for each entity, providing a 360° panorama of LVH beyond plain sight. Figure 1 illustrates four different morphologic patterns in hypertrophic cardiomyopathy, when we only look at the localization of the wall thickening.

Table 1 in this paper nicely illustrates the mapping findings in the different etiologies of LVH and Fig. 2 is an extensive illustration of imaging findings through the spectrum of

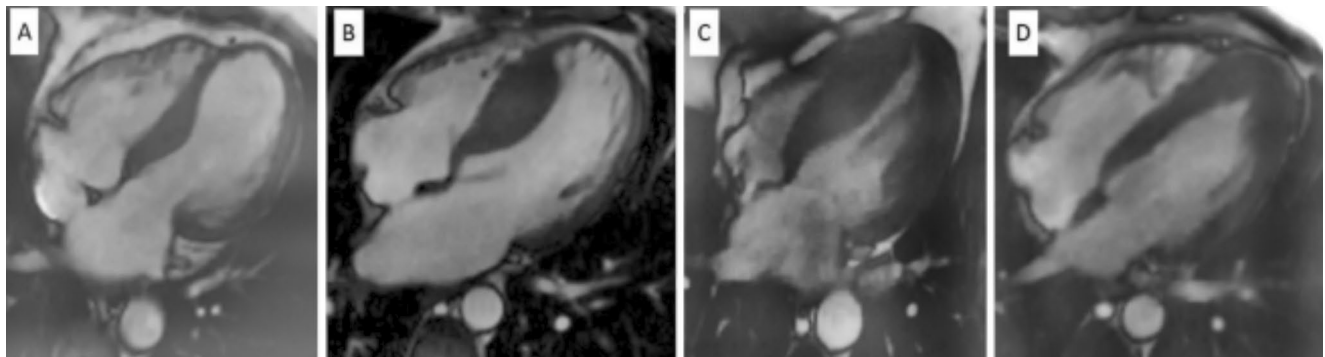


Fig. 1 Left ventricular hypertrophy patterns in hypertrophic cardiomyopathy: asymmetric septal (A, B), concentric (C) and apical (D)

✉ Johan HC Reiber
J.H.C.Reiber@lumc.nl

¹ Dept of Radiology, Leiden University Medical Center, Leiden, The Netherlands

left ventricular hypertrophy. Figure 3 is also a very useful flow chart to differentiate the different underlying diseases based upon the CMR findings plus of course information about the general patient's medical history.

I would like to thank you for your interest and would like to wish you much reading pleasure with this paper and all the other very interesting papers published in this April 2023 issue of the International Journal of Cardiovascular Imaging.

References

1. Aguiar Rosa S, Thomas B, Pieroni M et al (2022) Role of cardiovascular magnetic resonance in the clinical evaluation of left ventricular hypertrophy: a 360° panorama. *Int J Cardiovasc Imaging*. <https://doi.org/10.1007/s10554-022-02774-x>

Publisher's Note Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.

Note for production : Fig. 1 is Fig. 4 in the associated paper.