Editorial

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Cardiovascular medicine is increasingly moving beyond the question of whether a patient has disease toward a more important question: how much biological damage is already present when conventional measures still appear reassuring?

The five contributions in this issue illustrate this transition from different perspectives. Together, they highlight a common theme: clinically meaningful myocardial dysfunction may precede symptoms, reduction in left ventricular ejection fraction, or other conventional markers of disease progression.

The focused meta-analysis of global longitudinal strain (GLS) during exercise in asymptomatic severe aortic stenosis is particularly illustrative. Resting GLS was consistently worse in patients with abnormal exercise responses, while the difference became substantially greater during exercise. These findings support GLS as a sensitive marker of early myocardial involvement. At the same time, the considerable heterogeneity of exercise-derived measurements reminds us that physiological promise must be followed by methodological standardisation and prospective validation before a new parameter becomes a routine treatment trigger. The articles addressing myocardial deformation, stress physiology, and cardiovascular risk similarly reinforce the importance of contractile reserve rather than resting function alone. A preserved ejection fraction should increasingly be regarded as one component of ventricular assessment, not as proof of myocardial integrity.

A complementary message emerges from the article on artificial intelligence in cardiac amyloidosis. AI can identify subtle echocardiographic phenotypes and potentially increase diagnostic suspicion, but its value will depend on how intelligently it is integrated into clinical practice. An algorithm can identify a pattern; it cannot replace clinical context, expert interpretation, or responsibility for the final diagnosis. These observations lead to a broader principle.

The future of cardiovascular imaging will be defined less by individual measurements and more by the integration of structure, function, physiology, and computation.

GLS, exercise response, valve haemodynamics, myocardial fibrosis, biomarkers, and AI-derived phenotypes may ultimately become components of a multidimensional assessment of myocardial reserve. The challenge is not simply to detect more abnormalities, but to determine which abnormalities represent clinically actionable disease.

This distinction is especially important in asymptomatic severe aortic stenosis and other conditions in which irreversible myocardial injury may begin before symptoms become apparent. Earlier recognition may create an opportunity for earlier intervention-but only if the diagnostic signal has been adequately validated and shown to improve decision-making and outcomes.

As technology becomes increasingly capable of detecting what the human eye cannot easily see, the role of the clinician will not diminish. It will change. The future expert will be the clinician who can critically interpret increasingly sophisticated measurements and artificial intelligence without becoming dependent upon them.

Ultimately, the goal of innovation in cardiovascular imaging should remain simple: To recognize myocardial disease earlier, understand its biological significance more precisely, and intervene at the moment when treatment can make the greatest difference. This is the direction in which cardiovascular medicine is movinand the articles in this issue offer valuable steps along that path.

Sincerely,
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[1] World Health Organization. Cardiovascular diseases. Available at: https://www.who.int/health-topics/cardiovascular-diseases/#tab=tab_1 (Accessed: Sep 27, 2026); DOI: 10.18502/cbj.v6i1.22783