Correspondence

Letter by Prakash Regarding Article “Impaired Heart Rate Recovery and Chronotropic Incompetence in Patients With Heart Failure With Preserved Ejection Fraction”

To the Editor:

This study by Phan et al1 provides evidence of chronotropic incompetence in patients with heart failure but preserved left ventricular ejection fraction. The authors discuss autonomic dysregulation of the sinoatrial node and changes in sinoatrial nodal responsiveness to autonomic input as mechanisms that could contribute to chronotropic incompetence. Although the resting heart rate of patients with heart failure with preserved ejection fraction was similar to that in control subjects in this study,1 we do not know the contribution of the autonomic influences on the sinoatrial node to resting heart rate, as this study was not designed to assess this. Consequently, the possibility of lower intrinsic heart rate (IHR) contributing to the “chronotropic incompetence” observed in the heart failure with preserved ejection fraction group should also be considered. I do realize that interindividual variations in IHR of individuals of comparable age could be as high as aging associated reductions in IHR.2 However, there is some evidence suggestive of a lower IHR in individuals especially with severe heart disease even after age-associated reduction in IHR is considered.3,4 Also, there is evidence of depression of the hyperpolarization-activated pacemaker current in the sinoatrial node in a rabbit model of heart failure.5

Disclosures

None.

E.S. Prakash, MBBS, MD
Department of Physiology
Faculty of Medicine
AIMST University
Bedong, Kedah
Malaysia
E-mail dresprakash@gmail.com

References
