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Letter to the Editor

Ventricular arrhythmias and myocardial inflammation detection methods

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The study by Pavlicek and colleagues [1] in the recent issue provides valuable insight into the complex topic of risk of ventricular arrhythmias (VA) in myocarditis and the need for implantable cardioverter defibrillators. The authors are commended for presenting this topic with data supported by endomyocardial biopsy results (EMB). The population is mostly from non-acute setting and presentation of myocarditis. The authors state that EMB is a valuable tool for risk stratifying myocarditis patients based on identifying the inflammation in this group of patients and their positive experience. This is indeed true if we are able to identify such patients accurately using EMB only. Diverse etiology of chronic myocarditis, long term unknown consequences of unhealed myocarditis, and the fact that EMB cannot be used always for follow-up in many of these patients for practical reasons make this cohort of patients one of most complex groups we encounter in clinical practice. Two-thirds of patients with LV dysfunction of unknown origin have viral genome in their myocardium [2,3]. Furthermore, despite recovery from inflammation and myocarditis, scar-related VAs may occur later [3,4]. EMB and multimodality imaging including cardiac magnetic resonance (CMR) imaging need to used together to decipher whether the VA is from the persistent inflammation or post-inflammatory myocardial scar. Often times, it is still difficult to find the cause. Despite no structural changes during acute inflammation stage of myocarditis, patients present with LV dilation later even without evidence of chronic inflammation [3]. CMR can help in some of these cases. We need more research in this complex cohort of patients with follow-up data supported by EMB when needed and CMR in other cases as applicable.

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