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Letters

TO THE EDITOR

Risk Stratification in Dilated Cardiomyopathy

Is the Arrhythmogenic Substrate Stable Over Time?

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We congratulate Di Marco et al. (1) for their excellent meta-analysis, shedding light into the "darkness" of risk stratification in dilated cardiomyopathy (DCM). As suggested in the editorial comment, a polyparametric approach including late gadolinium enhancement could prove to be helpful (2). In this context, we suggest including results from endomyocardial biopsy in this polyparametric approach, because the clinical diagnosis of DCM often includes a variety of underlying causes. Although the predictive value of programmed ventricular stimulation in ischemic cardiomyopathy is quite good, it has unfortunately proven to be a weak predictor of arrhythmogenic events in patients with DCM (1,3). In our opinion, a better understanding of the arrhythmogenic substrate in patients with DCM could dramatically improve therapeutic and prophylactic approaches.

Our data indicate that ongoing inflammation, as detected by endomyocardial biopsy, may lead to further remodeling and may generate and enhance arrhythmogenic substrates (3). In contrast, the arrhythmogenic substrate in post-embolic cardiomyopathy is quite stable and therefore the prediction of arrhythmogenic events is more feasible than in diseases with ongoing remodeling, such as DCM (4). Because implantable cardioverter-defibrillator implantation is a major decision for life, the assessment of the arrhythmogenic risk at a certain point of time should take into account ongoing remodeling with possible subsequent risk modification. It is also still unclear whether patients with DCM could be more vulnerable to suffer from re-entry tachycardia, enhanced focal autonomy, or vulnerability for ventricular fibrillation induced by ventricular premature beats.

In our opinion, endomyocardial biopsy may be a possibility to analyze parameters of active ventricular remodeling, which might help to find suitable short- and long-term strategies in this patient collective.

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REPLY: Risk Stratification in Dilated Cardiomyopathy: Is the Arrhythmogenic Substrate Stable Over Time?

We thank Dr. Heinzmann and colleagues for their interest in our meta-analysis and their useful comments. We agree that improved risk stratification in nonischemic dilated cardiomyopathy (DCM) will require a multipronged approach, and we share their interest in the role of myocardial inflammation as a driver of adverse remodeling in some subgroups of DCM (1). Although endomyocardial biopsy (EMB) is an invaluable diagnostic tool in selected clinical scenarios, we feel that its invasiveness and shortcomings with respect to sampling error will prevent it from gaining widespread application as a surveillance tool. Indeed, we anticipate that other emerging techniques, including the application of ultra-small iron oxide particles as well as other nano- and nuclear tracers in combination with positron emission