

# LETTERS TO THE EDITOR

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## Endomyocardial biopsy in the hands of the electrophysiologist: the 'one-stop shop' for arrhythmic non-ischaemic cardiomyopathy. Letter regarding the article 'Heart Failure Association of the ESC, Heart Failure Society of America and Japanese Heart Failure Society Position statement on endomyocardial biopsy'

We eagerly awaited the publication of an updated expert consensus on endomyocardial biopsy (EMB), which has been lacking for the past 14 years.<sup>1</sup> In fact, notwithstanding the tremendous progresses made in the field of non-invasive cardiovascular imaging during this time window, EMB still provides fundamental diagnostic and prognostic information while also being an important research tool, and an updated scientific document on EMB was highly needed. Although Seferović *et al.*<sup>2</sup> provide a contemporary and comprehensive perspective on the topic, we fear that some points may have not been adequately addressed in their statement.

First, concerning the access site to left ventricular EMB, we and others prefer using a transseptal approach with a steerable sheath as compared to a retrograde approach through the aortic valve.<sup>3</sup> In fact, the transseptal approach facilitates the access to septal and inferior-lateral myocardial segments, which are commonly involved in arrhythmogenic cardiomyopathies, while also allowing for stable catheter positioning when catheter ablation is performed during the same procedure. For these reasons, we believe that the transseptal approach should be preferred for electroanatomical

voltage mapping (EVM)-guided left ventricular EMB, and that *Figure 4* should incorporate such an approach instead of the retrograde access to the left ventricle through the aortic valve.

Second, we feel that the use of EVM as a guide for EMB is not adequately stressed throughout the document. In fact, EVM has the potential to enhance diagnostic accuracy of EMB, by allowing sampling myocardial segments involved by patchy disease processes (e.g. myocarditis, sarcoidosis). Our group recently showed that EVM has comparable sensitivity to cardiac magnetic resonance imaging in predicting EMB results, with superior specificity, and that combining both techniques yields optimal sensitivity (95%).<sup>3</sup> Furthermore, we previously reported that unipolar EVM, although underutilized, carries higher sensitivity than bipolar EVM in guiding EMB among patients with non-ischaemic cardiomyopathies, because of its wider field of view, which allows the detection of intramural and/or subepicardial pathological substrates.<sup>3,4</sup> We believe that this information may be of practical help for physicians, and should be incorporated in an updated consensus statement.

Once considered a risky and invasive diagnostic tool in the hands of the heart failure/transplant specialist, EMB has tremendously evolved over the past 15 years to become a precious asset for the electrophysiologist. The importance of a precise differential diagnosis among the different disease processes once grouped under the umbrella of non-ischaemic cardiomyopathy cannot be overemphasized in the era of precision medicine,<sup>5</sup> and a more widespread performance of EMB by electrophysiologists could turn the electrophysiology procedure into a one-stop shop for diagnosis (through EVM and EMB) and treatment (through catheter ablation) for non-ischaemic cardiomyopathy patients with an arrhythmic presentation.

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