LETTER TO THE EDITOR

Temporal Variations in Microvolt T-Wave Alternans Testing after Acute Myocardial Infarction

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RESPONSE AND COMMENTS TO THE LETTER TO THE EDITOR SENT BY DR. JOHN E. MADIAS

Dear Editor,

We appreciate the interest of Dr. John Madias in our article¹ and the perspective provided of the limitations currently observed in microvoltage T-wave alternans (TWA) assessment. We agree with most of the comments with regard to appropriately interpreting the results of TWA. Nevertheless, a large number of authors demonstrated the role of TWA as a strong independent predictor of sudden cardiac death (SD) in diverse disease states based in the spectral analysis of the signal and qualitative assessment of TWA²⁻⁵. We would like to point out that, beyond changes in the electrophysiological status of the patients and potential problems with the reproducibility of the test, postinfarction ventricular remodeling and depressed left ventricle function can possibly contribute to modifications in TWA results. If we accept that TWA reflects myocardial damage, then quantitative assessment of TWA voltage may yield pathophysiological and prognostic information, which may be supplementary to qualitative TWA determination. Risk stratification strategies are still a matter of intense debate due to the major impact of SD as a public health problem.

The Medicare decision to allow reimbursement for the TWA in USA is expected to expand the pool of patients submitted to TWA testing. Therefore, longitudinal studies including serial measurements of TWA magnitude and characterization of T waves could be useful for the comprehension of the phenomena associated with the repolarization alternans and contribute to the use of TWA testing in clinical practice.

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