A new marker for ventricular tachyarrhythmias in patients with post-infarction left ventricular aneurysm: Big endothelin-1

To the Editor,

We read with interest the article entitled “Big endothelin-1 as a clinical marker for ventricular tachyarrhythmias in patients with post-infarction left ventricular aneurysm” by Ning et al. (1). In this study, the authors demonstrated that big endothelin-1 (B-ET-1) may be an independent predictor of ventricular tachyarrhythmias (VT) in patients who develop left ventricular aneurysm (LVA) following acute myocardial infarction (AMI). Although the research was well conducted, we have some concerns that should be clarified.

Several previous studies have shown that B-ET-1 levels are remarkably elevated in patients with coronary artery disease and AMI (2-4). In particular, one experimental study revealed that plasma levels of ET-1 sharply rise following AMI, reaching a peak value at 6 h and returning toward the normal range by 24 h (4). However, the authors of the present study have not mentioned the time at which plasma levels of B-ET-1 were measured.

Moreover, the authors mention that informed consent was obtained from the study participants prior to enrolment in the study. However, they acknowledge that the major limitation of the study was the observational retrospective study design. We considered that the data was prospectively collected but retrospectively analyzed. We believe that this issue regarding the methodological design should be explained in detail.

In previous reports, LVA is commonly located in the anterior wall, whereas inferoposterior or posterolateral aneurysms are less common (5). In this article, the investigators have not provided any information regarding the location of LVA. Moreover, we speculated whether there is a significant difference in the VT burden and plasma levels of B-ET-1 depending on the location of LVA.

In the present research, the authors stated that all arrhythmia-related information, including that from patients who underwent placement of an implantable cardioverter defibrillator (ICD), was collected and reviewed. Hence, it would be valuable to know whether there is a difference between plasma levels of B-ET-1 in patients who had multiple ICD shocks due to multiple recurrent VT attacks and in those without ICD shock.

Overall, although some clinical information was missing in the article, the findings of the present study may be valuable in terms of providing new insights into biomarker-guided targeted therapies for VT.

References


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Editor’s note
Despite our repeated emails, we received no response from the authors.