Letter to the Editor

Left Ventricular Mechanical Dispersion for the Better Risk Stratification of Patients with Hypertrophic Cardiomyopathy: Is It Possible?

Dear Editor,

Sudden cardiac death (SCD) in patients with hypertrophic cardiomyopathy (HCM) is a probable catastrophe. To predict SCD in HCM, the European Society of Cardiology introduced a risk scoring system that combined several factors such as age, the left atrial size, the maximal thickness of the left ventricular (LV) wall, the LV outflow tract gradient, a history of syncope, a family history of SCD, and the presence of non-sustained ventricular tachycardia in electrocardiography Holter monitoring.[1] According to this risk scoring system, if the estimated risk of SCD in 5 years is less than 4%, the patient does not need a prophylactic implantable cardioverter-defibrillator (ICD); if it is more than 6%, the patient needs a prophylactic ICD; and if it is between 4% and 6%, the patient may require a prophylactic ICD.[1] The latter class, denoting a moderate risk for SCD, requires further stratification so that clinicians can optimally determine who needs an ICD and who does not.

Recently, LV mechanical dispersion has received attention from researchers.[2, 3] This index is usually calculated via the speckle-tracking echocardiography of the LV to respectively depict the strain curve in all myocardial segments, measure the time-to-peak strain curve in all myocardial segments, and determine the standard deviation of these measured times.

The mechanical dispersion index in patients with HCM can predict non-sustained ventricular tachycardia in electrocardiography Holter monitoring.[4, 5] The index can also predict ICD shocks in patients suffering from HCM.[6]

In light of such evidence, we suggest that future research be directed toward the investigation of the efficacy of the LV mechanical dispersion index for the further risk stratification of patients suffering from HCM. Additionally, in this group of patients with a moderate risk for SCD, the index could better clarify patient selection for ICD implantation.

References

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Reza Mohsenibadalabadi, MD

Tehran University of Medical Sciences,
Department of Cardiology,
Tehran Heart Center,
North Karegar Street,
Tehran,
Iran.
1411713138.
Tel: +98 21 88029731.
Fax: +98 21 88029731.
E-mail: mohsenihr@yahoo.com.

Ali Hosseinsabet, MD*

Associate Professor of Cardiology,
Tehran University of Medical Sciences,
Department of Cardiology,
Tehran Heart Center,
North Karegar Street,
Tehran,
Iran.
1411713138.
Tel: +98 21 88029731.
Fax: +98 21 88029731.
E-mail: ali_hosseinsabet@yahoo.com.