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Prognostic information on HCM patients via speckle tracking

Reply

This reply refers to Rigopoulos A et al (2017) Speckle tracking imaging in hypertrophic cardiomyopathy: a powerful tool in search of an unfavorable substrate? Herz. <https://doi.org/10.1007/s00059-017-4653-3>
 Original version: Candan O et al (2017) Left ventricular twist in hypertrophic cardiomyopathy: predictor of nonsustained ventricular tachycardia. Herz. <https://doi.org/10.1007/s00059-017-4633-7>

We are pleased with the authors' interest in our article titled "Left ventricular twist in hypertrophic cardiomyopathy: predictors of nonsustained ventricular tachycardia" published in *Herz* [1], and we would like to thank them for their contribution.

In our study, left ventricular twist was found to be significantly higher for those in whom ventricular arrhythmia (nonsustained ventricular tachycardia; NsVT) developed compared with those in whom ventricular arrhythmia did not develop ($p = 0.03$), whereas untwist was not significantly different between the two groups. No significant difference was observed for the parameters of twist and untwist among the groups with high ($>4\%$) and low hypertrophic cardiomyopathy (HCM) risk scores ($<4\%$). Global longitudinal peak strain (GLPS) was found to be significantly lower in the group in which arrhythmia developed or in which the HCM risk score was high.

Regarding the development of NsVT, the positive predictive value was 40% and the negative predictive value was 83% for twist >15.2 , while the positive predictive value was 45% and the negative predictive value was 89% for GLPS < -11.9 . In terms of HCM risk score, the positive predictive

value was 80% and the negative predictive value was 60% for GLPS < -11.9 .

Regarding the HCM risk score, only the positive predictive value of GLPS was found to be high whereas the negative predictive value of GLPS as well as twist, as stated by Rigopoulos et al., was identified to be higher in terms of arrhythmia development. In light of these data, the speckle-based parameters can provide prognostic information on the HCM patient group in terms of arrhythmia development and/or sudden cardiac death [2, 3]. They can furthermore provide additional information to the MOGE(S) classification, as the authors also specified [4]. There is a need for studies including more patients and in which clinical follow-up is monitored.

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Conflict of interest. O. Candan, C. Gecmen, A. Kalaycı, E. Bayam, A. Guner, S. Gunduz, S. Cersit, and M. Ozkan declare that they have no competing interests.

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