

Prognostic Significance of Non-Sustained Ventricular Tachycardia Depends on Its Rate and Duration

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Dear Editor,

We read the article “Non-Sustained Ventricular Tachycardia (NSVT) Episodes Predict Future Hospitalization in ICD Recipients with Heart Failure” written by Uçar et al.¹ with great interest. NSVT identified on routine ICD interrogation should be considered an important clinical event as the authors state in this article. However, we would like to bring attention to some issues related to the article.

Keywords

Heart Failure / physiopathology; Tachycardia, Ventricular; Hospitalization; Defibrillators Implantables.

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NSVT was defined as 4 or more consecutive beats with a rate > 167 beats/min and shorter than 16 beats in this study. Both detection rate and number of intervals to detect (NID) ventricular tachycardia were slightly below the conventional interval (NID = 18/24) detection of VT/VF \geq 188 bpm that have been proven effective.^{2,3} If we also include the new long-detection programming strategies (NID = 30/40) into this subject, we can say that the authors documented the increase in hospitalization, just only with slower and shorter episodes of NSVT.

Previously published reports showed that faster and longer runs of NSVT were more predictive than slower and shorter ones for adverse events.⁴ But, since there was no data about duration and rate of the NSVT episodes in the article, we could not establish an opinion about the importance of rate and duration of NSVT for predicting future hospitalizations.

More recently, the use of long-detection interval programming has received widespread acceptance based on several large randomized trials.^{3,5} With these new programming strategy, we believe that the prognostic value of NSVT will increase even more.

References

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Reply

Dear Editor,

We thank the journal readers for their great interest in our original article titled "Non-Sustained Ventricular Tachycardia Episodes Predict Future Hospitalization in ICD Recipients with Heart Failure" recently published in *Arquivos Brasileiros de Cardiologia*.¹

In our study, we programmed ICD's zones as ventricular tachycardia VT (167-200 bpm) with discriminators and VF (> 200 bpm). *Non-sustained ventricular tachycardia* NSVT was defined in the monitored zone of ICD as 4 or more consecutive beats arising below the atrioventricular node with a rate > 167 beats/min and shorter than 16 beats. We used the number of intervals to detect (NID) ventricular tachycardia in

VF zone or fast VT(FVT) zone. In our device program FVT zone was off NID was 18/24 in VF zone. If we programmed NID as 30/40, maybe we could detect more NSVTs, but in our analyses, we did not have any NSVT patients in VF (> 200 bpm) zone. All our patients were in VT (167-200 bpm) zone.

Finally, it is difficult to make a final decision according to our findings with a relatively limited study population. Hence, the new long-detection programming strategies need to be confirmed in further and larger prospective multicenter trials about the prognostic value of NSVT.

Sincerely,

Fatih Mehmet Uçar

Reference

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