LETTERS TO THE EDITOR

Importance of Tachogram Length and Period of Recording during Noninvasive Investigation of the Autonomic Nervous System

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I read with great interest the recent work of Grant and colleagues[1] that was recently published in the April 2011 issue. Of particular interest was that most 3-minute HRV measures were stable during supine rest but varied during the first 3-minutes of standing, most likely due to baroreflex mediated changes.[2] Further, these authors highlighted the need for standardized recording times for supine and standing HRV. Coincidently, within the same week, we published similar work examining the short-term stability of HRV with a recommendation of a standardized protocol for the recording of HRV during supine, seated, and standing positions.[3] While the studies differed in HRV recording length (10- vs. 3-minute), HRV analysis software (AD Instruments vs. Biomedical Signal Analysis Group), populations (males and females vs. not stated), the combined results indicate that once a participant has established a resting position, all HRV measures remain stable for at least 10 minutes with measures of sole parasympathetic modulation stable for up to 40 minutes. Consequently, our recommendation of a standardized protocol for the recording of resting HRV[3] and the recent work of Grant et al.[1] highlight an important methodological issue that influences HRV comparisons for healthy populations. It remains to be seen whether similar HRV kinetics exist for populations of various clinical pathologies.

REFERENCES

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