

## Relevance of Tricuspid Annular Peak Systolic Velocity ( $S'$ ) to Detect Systolic Right-Ventricular Impairment After Anthracycline Cancer Treatment in Childhood

Gunther Gores · William Ravekes ·  
Martin Koestenberger

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### To the Editor,

We read with interest the article “Assessment of Early-Onset Chronic Progressive Anthracycline Cardiotoxicity in Children: Different Response Patterns of Right and Left Ventricles” from Kocabas et al. [2]. In our opinion, this is an excellent article describing the effect of cumulative dose on left-ventricular (LV) and right-ventricular (RV) function in pediatric patients receiving cancer treatment using tissue Doppler imaging (TDI) parameters. The importance of TDI measurements of LV and RV function in the process of dose evaluation of anthracycline treatment has also been described to be a clinically useful technique for the assessment of LV and RV function [1]. Kocabas et al. [2] clearly state that abnormalities of RV and the LV function were observed even with a cumulative anthracycline dose  $<120 \text{ mg/m}^2$ . They also found that the tricuspid annular peak systolic velocity ( $S'$ ) was significantly lower in a patient group receiving anthracycline at doses  $>240 \text{ mg/m}^2$  than those observed in a control group. In accordance with the findings of Kocabas et al. [2], the impairment of RV and LV function after anthracycline treatment using cardiac magnetic resonance imaging has also been described in long-term survivors of childhood cancer [4]. For the convenience of the readership of Pediatric Cardiology, we add that recently our group published normal  $S'$  values with

z-scores for healthy pediatric patients [3]. Given these available normal values, the investigators would have been able to compare the measured  $S'$  values of their patients with respective age-related normal z-score values and not only with those of a small control group. This comparison probably would have improved the statistical power of their analysis, although we must state that the normal values for this age group are close to adult normal values. The remarkable study from Kocabas et al. [2] clearly supports the notion that the right ventricle is susceptible to anthracycline in pediatric cancer patients. We thank the investigators for addressing the need for careful and systematic evaluation of both RV and LV function in the context of the need of cancer treatment with anthracycline in children and look forward for more interesting studies from this group.

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G. Gores · M. Koestenberger (✉)  
Division of Pediatric Cardiology, Department of Pediatrics,  
Medical University Graz, Auenbruggerplatz 34/2, 8036 Graz,  
Austria  
e-mail: koestenbergerm@gmx.at;  
Martin.Koestenberger@medunigraz.at

W. Ravekes  
Division of Pediatric Cardiology, Johns Hopkins University  
School of Medicine, Baltimore, MD, USA