

The assessment of diastolic dyssynchrony and function after cardiac resynchronisation therapy

Ocena dyssynchronii i czynności skurczowej po zastosowaniu terapii resynchronizującej serca

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It was with great interest that we read the recent article by Praus et al. [1] entitled 'Echocardiographic changes after cardiac resynchronisation therapy' published in the December issue of 'Kardiologia Polska'. The authors aimed to evaluate echocardiographic changes in clinical responders and nonresponders after three and 15 months of cardiac resynchronisation therapy (CRT). They showed significant improvement of systolic function and also significant remodelling of both ventricles in the group of responders 15 months after CRT implantation. We believe that these findings will enlighten further studies about echocardiographic findings after CRT. Thanks to the authors for their valuable contribution.

Dyssynchrony may occur during ventricular contraction (systolic dyssynchrony) or during relaxation (diastolic dyssynchrony) [2]. However, systolic dyssynchrony has been more widely investigated than diastolic dyssynchrony. Systolic dyssynchrony has been investigated largely in patients with heart failure in recent years, after development of the pacing therapy known as CRT [3]. Systolic dyssynchrony has also been shown in several cardiac disease models. Echocardiography is the most commonly used imaging method for this purpose.

The current study [1] assessed intra- and interventricular systolic dyssynchrony, but not diastolic dyssynchrony. On the other hand, they only evaluated left and right ventricular systolic functions in the group of responders and nonresponders. In the responders' group, they found a significant improvement of right ventricular systolic function evaluated by tricuspid annular plane systolic excursion and a decrease in the size of the right ventricle only after 15 months. However, they showed significant improvement of left ventricular systolic function and remodelling after only three months. Further studies should be conducted to assess diastolic dyssynchrony, and right and left ventricular diastolic functions in patients with CRT.

Conflict of interest: none declared

References

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