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Letters to the Editor

Tissue Doppler Imaging: Diagnostic and Prognostic Value

The paper by Yu et al. (1) in the *Journal* summarized the applications of tissue Doppler imaging (TDI). However, we consider additional clinical applications to be very important. We have used TDI routinely for after-transplant monitoring since 1998. Our studies proved TDI's reliability for early detection of acute rejection and transplant coronary artery disease (TxCAD) and showed that serial TDI can spare patients unnecessary and distressing routine invasive examinations (2,3). Tissue Doppler imaging also appeared reliable for prognostic estimations after heart transplantation and for the evaluation of rejection severity and guidance of antirejection therapy (2,3). Recently we showed that TDI can also be helpful in evaluations of myocardial recovery during mechanical unloading after ventricular assist device (VAD) implantation (4).

We do not agree with Yu et al. (1) that myocardial deformation imaging is not ready for routine clinical use. Recently, Perk et al. (5) emphasized the clinical reliability of the method. We use 2-dimensional strain imaging routinely for patients' evaluation before and after coronary surgery and also for noninvasive monitoring of allograft function after heart transplantation. Additionally, 2-dimensional strain imaging is our method of choice for patient selection for surgical ventricular restoration (SVR) after severe myocardial infarction. We found that the systolic dyssynchrony indexes and global strain rate are reliable for evaluation of myocardial functional changes during postoperative reverse remodeling processes after SVR. The 2-dimensional strain method also improved our ability to evaluate cardiac recovery after VAD implantation and was decisive for the decision to wean 5 patients

from their assist devices. In heart-transplanted patients, we found that systolic strain dyssynchrony and dyssynergy indexes are more useful than pulsed-wave TDI parameters for differentiation between angiographic TxCAD with and without proximal focal stenoses.

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