

## Evaluation of Noncompaction Cardiomyopathy by Modern Echocardiographic Methods

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The paper by Rosa et al<sup>1</sup> entitled “Noncompaction cardiomyopathy – a current view” was read with great interest. This review was aimed to demonstrate that MRI, CT and left ventriculography have emerged as diagnostic methods over conventional echocardiography in the evaluation of noncompaction cardiomyopathy (NCCM). This summary is impressive, but we feel that a few additional comments on new modern echocardiographic methods are necessary.

Real-time three-dimensional (3D) echocardiography (RT3DE) was found to be useful to assess NCCM. It was shown that systolic LV dysfunction is not confined to noncompacted LV segments in NCCM<sup>2</sup>. Mitral annulus (MA) was found to be

enlarged and functionally impaired with a higher incidence and severity of mitral regurgitation<sup>3</sup>. Left atrial (LA) ejection force (LAEF) based on peak mitral inflow A wave velocity and RT3DE-derived MA was increased in NCCM patients compared to normal individuals suggesting compensating LA work against the dysfunctional LV<sup>4</sup>.

There is another promising new echocardiographic method, with which LV strain, rotation and twist parameters can be assessed: speckle-tracking echocardiography (STE). Van Dalen et al<sup>5</sup> were the first to demonstrate that “LV solid/rigid body rotation”, with nearly absent LV twist, may be a new sensitive and specific, objective and quantitative, functional diagnostic criterion for NCCM<sup>5</sup>.

RT3DE and STE can help us understand the pathophysiology of NCCM and hopefully the exact place of these methodologies will be clarified in the evaluation of NCCM patients.

### Keywords

Cardiomyopathies; diagnosis; echocardiography; tomography; magnetic resonance spectroscopy.

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Manuscript received September 18, 2011; revised manuscript received September 23, 2011; accepted March 05, 2012.

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