May 2013

Tissue Doppler in ArrhythmogenicRight Ventricular Dysplasia Cardiomyopathy (ARVD/C)

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Arrhythmogenic right ventricular dysplasia cardiomyopathy(ARVD/C) is an inherited disease characterized by fibrofattyreplacement of right ventricular (RV) myocardium.It accounts for 20% of individuals who experience sudden cardiac death. The diagnosis is established based on Task Force Criteria, which has been revised to modify imaging and genetic criteria in 2010.

In addition to ventriculararrhythmias,ARVD/C results in progressive RV dilationand systolic dysfunction leading to heart failure.Ventricular mechanical dyssynchronyhas been well described in left ventricular (LV)failure and itappears in ARVD/C as well.

Cardiac magnetic resonance imagining (CMR) is the golden tool to evaluate myocardial fatty change and fibrosis in the clinical setting. Tissue Doppler echocardiography(TDE) and strain echocardiography (SE) haveemerged as the predominant means of evaluating ventricularmechanics and regional dysfunction. We will discuss the application of TDE and SE in ARVD/C, correlation with histology and comparison with CMR.