**VALVULAR HEART DISEASE: CAN MRI TRUMP THE ECHOCARDIOGRAM**

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Introduction: Valvular heart disease has typically been in the purview of the echocardiography suite. However, numerous limitations exist suggesting that cardiac MRI (CMR) with its increased spatial resolution as well as tissue characteristics may provide additional, added or even a competitive advantage to the assessment of valvular heart disease.

Methods: Using cardiac MRI, the combination of tissue characteristics, high spatial resolution, flow velocity mapping and late gadolinium enhancement (LGE) was used to demonstrate the early and mid utility of CMR to a series of valvular heart disease conditions. Specifically, clinical and research investigations into the applications of CMR to aortic stenosis, aortic regurgitation, mitral regurgitation, mitral stenosis, tricuspid regurgitation and pulmonic valve disease was performed.

Summary: In each of these valvular conditions, the demonstration of increased ability to define, characterize and in many cases to objectively and arithmetically quantitate gradients and regurgitant fractions as well as to describe accurately the underlying valvular disease is demonstrated.

Conclusion:No longer can echocardiography be trumped as the “Gold Standard” for the assessment of valvular heart disease as CMR now has increasing capability to be equivalent or in many cases superior for the assessment of the patient with valvular heart disease.