Practical Tricks for Cardiac MRI: Viability

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Objectives
1. To review various imaging techniques and methodology that can be used to assess myocardial viability:
   - Late gadolinium enhancement techniques
     - Optimal pulse sequences and acquisition parameters
   - Detection of microvascular obstruction
     - Optimal pulse sequences and acquisition parameters
   - Dobutamine stress MRI
     - Utility
   - Approaches to differentiate reversible from irreversible myocardial injury
     - Combined T1 and T2 assessment using conventional approaches
     - New combined T1 and T2 quantitative mapping – potential future role
2. To review how these techniques can be applied clinically in both ischemic and nonischemic heart disease.
3. To review the role of MR imaging for viability assessment in clinical trials

Brief Description
In this presentation, characteristics of viable myocardium will be reviewed and linked toward how the various MR techniques can assess each of these attributes. The preferred techniques and their optimal acquisition parameters will be covered, including newer approaches. Clinical and research applications of these techniques will also be discussed.

References
5. Kramer C, Barkhausen J, Flamm S, Kim R, Nagel E. Standardized cardiovascular magnetic resonance imaging (CMR) protocols, society for...
