

ISMRM 2010

Cardiovascular MR Imaging: Disease or Problem Based Teaching, Practical Protocols

Image Processing and Visualization: Perfusion

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Image processing and visualization for myocardial perfusion MR has evolved to keep pace with the rapid evolution of acquisition methods. Image processing and visualization in practice ranges from review of cine loops with various methods to discriminate artifacts from real perfusion defects all the way to more sophisticated modeling and estimation of perfusion in quantitative terms, and creation of parametric maps. In this talk, some current methods of processing perfusion images and visualizing results will be reviewed.

Artifacts in perfusion imaging

- Sources of artifacts
- Approaches to mitigate artifacts during acquisition

Methods for suppressing artifacts during processing

- Corrections for acquisition imperfections
- Motion correction

Semi-quantitative perfusion analysis

- ROI based
- Parametric maps

Quantitative perfusion analysis

- Models
- Processing steps

Stress-Rest Analysis Methods

- Semi-quantitative
- Quantitative