

## **Practical Tricks for 3.0T Whole-Heart Coronary MRA**

**Q. Yang<sup>1</sup>, K. Li<sup>1</sup>, X. Du<sup>1</sup>, and D. Li<sup>2</sup>**

<sup>1</sup>Radiology, Xuanwu Hospital, Beijing, Beijing, China, People's Republic of, <sup>2</sup>Biomedical Imaging Research Institute, Cedars-Sinai Medical Center

## **Practical Tricks for Contrast Enhanced Whole-Heart Coronary MRA at 3.0T**

### **Purpose**

This education exhibit will provide an overview of the role of 3.0T contrast enhanced whole-heart coronary MRA for diagnosis and evaluation of cardiac disease. This course will also provide practical tricks as well as insight into new techniques for coronary MRA.

### **Outline of Content**

1. Technical considerations and advanced methods in CMRA
  - Motion Compensation
  - Contrast between Blood and Surrounding Tissue
  - Whole-Heart CMRA
  - Advantages and Disadvantages of High Field Coronary Imaging
  - Methods of Contrast Agents Administration for CMRA
2. Clinical Applications of Whole Heart CMRA
3. Advanced Methods In CMRA
4. Practical Recommendations for Whole-Heart Coronary MRA at 3.0T
  - Patient Training
  - Vector Electrocardiogram at 3T
  - Contrast Injection
  - Survey Scanning

### **Summary**

3.0T contrast enhanced Whole-Heart coronary MRA permits a major step forward for the clinical use of CMRA. The use of blood-pool contrast agent might open the door to further improve the diagnostic accuracy of contrast enhanced CMRA at 3.0T. The combination of CMRA with tissue perfusion and viability provides a comprehensive assessment of the patient with known or suspected CAD.