

Cardiovascular MR Imaging: Bridging the Gap Between Research and Clinical Problems

Lumen and Vessel Wall Imaging: Peripheral Arteries

May 12, Thurs 7.40 am

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Assessment of peripheral vascular disease has transitioned from the previously accepted gold standard of digital subtraction angiography to non-invasive imaging, including MRA and CTA.

This lecture will review in detail techniques for contrast enhanced MRA (CEMRA) of the peripheral vasculature. Methods for implementing conventional CEMRA and time-resolved MRA will be discussed and techniques will be illustrated with clinical examples, using other imaging modalities such as DSA and CTA for correlation. The diagnostic and therapeutic decision making process will be investigated in the context of both atherosclerotic and non-atherosclerotic peripheral vascular disease.

Non-contrast MRA techniques will be discussed with respect to their specific use for peripheral vascular imaging. Strategies for their implementation either independently or in combination with CEMRA will be described, in the context of commonly encountered clinical scenarios.

Different contrast agents will be described and protocols for their use in MRA of the lower extremities will be described.

Newer techniques for assessment of peripheral vascular disease including phase contrast MRI and plaque imaging will briefly discussed.

A brief overview of evidence from the medical literature will be presented supporting the use of these newer MRA techniques