**Hazem Soliman. Diagnostic accuracy of three-dimensional contrast-enhanced automatic moving-table MR angiography in patients with peripheral arterial occlusive disease in comparison with digital subtraction angiography. The Egyptian Journal of Radiology and Nuclear Medicine, Volume 46, Issue 1, March 2015, Pages 79–87.**

## Abstract

**Objective:** The aim of this study was to compare the diagnostic accuracy of contrast-enhanced (CE) three-dimensional (3D) moving-table magnetic resonance (MR) angiography with that of selective digital subtraction angiography (DSA) for routine clinical investigation in patients with peripheral arterial occlusive disease.

**Methods:** Between April 2012 and May 2013, the lower extremities of 30 patients with suspected peripheral vascular disease performed both conventional digital subtraction angiography and three-dimensional contrast-enhanced MR angiography MRA with automatic table movement technique (MoBI-trak). DSA and MR angiographic images were interpreted prospectively, one vascular radiologist interpreted the digital subtraction angiographic images and a second vascular radiologist interpreted the MR angiographic images; both interpreters were unaware of the clinical history and the results of the other examination.

**Results:** The MRA and DSA studies in the 30 study patients produced 870 arterial segments for interpretation. The sensitivity of MRA for the detection of mild stenotic, hemodynamically severe stenotic and occlusions were 86.1%, 90.5% and 93.9% respectively. Corresponding specificity was 90.1%, 96.1% and 97.5%, respectively.

**Conclusion:** Our prospective comparison shows that three-dimensional contrast-enhanced automatic moving-table MRA is a noninvasive imaging modality that has a diagnostic accuracy comparable to DSA for the assessment of peripheral arterial occlusive disease.