

# **BLOODPOOLAGENTS**

## **CLINICAL EXAMPLES**

**Exclusion of an AV Fistula  
Following Cardiac Catheterization**

# Exclusion of an AV Fistula Following Cardiac Catheterization

Venous imaging with a simple subtraction technique

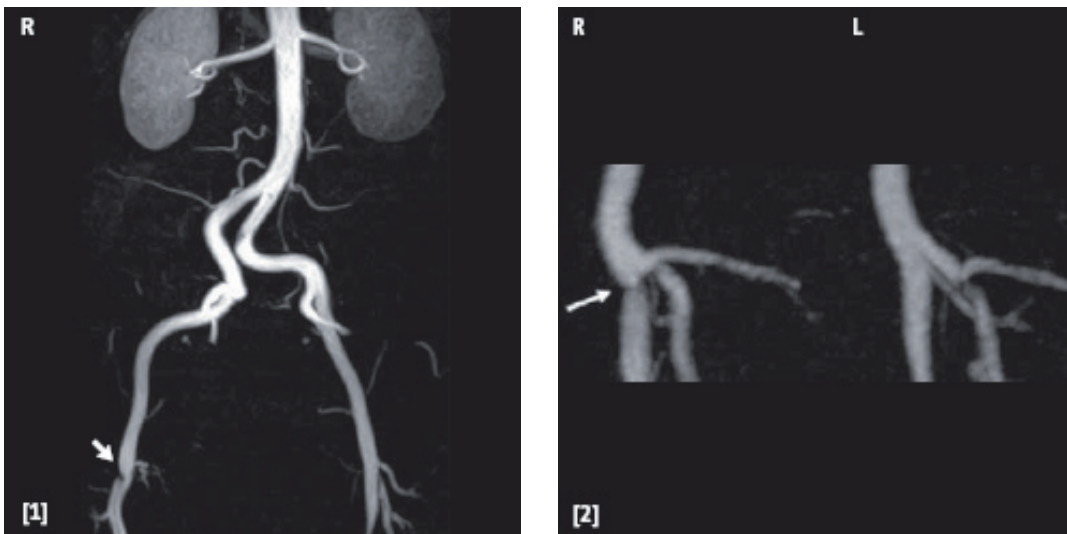
MR Equipment		
Type	Siemens Symphony/Quantum	
Field Strength (T)	1.5	
Gradient Amplitude (mT/m)	30	
Gradient Rise Time (ms)	0.240	
Coil(s)	Body + Spine Array	
MR Sequence Parameters	Dynamic	Steady State
Sequence	FLASH 3D	FLASH 3D
Repetition Time (ms)	2.9	2.9
Echo Time (ms)	1.1	1.1
Flip Angle (°)	40	40
Bandwidth (Hz/Pixel)	650	650
Slice Thickness (mm)	1.2	1.2
Number of Slices	80	80
FOV (mm)	380	380
Phase Field of View (%)	75	75
Acquisition Matrix (Pixel)	384 x 268	384 x 268
Resolution (mm <sup>2</sup> )	1.0 x 1.2	1.0 x 1.2
Image Matrix (Pixel)	384 x 268	384 x 268
Acquisition Time (s)	23	23
Fat Saturation (yes/no)	yes	yes
Parallel Imaging (Factor)	no	no
Contrast Agent Application (all i.v.)	Dynamic	Steady State
Test Bolus Contrast Media		
Application Type	automated	
Volume @ Flow Rate	1 ml @ 3 ml/s	
Testbolus NaCl		
Application Type	automated	
Volume @ Flow Rate	20 ml @ 3 ml/s	
MR Angiography		
Application Type	automated	
Volume @ Flow Rate	7 ml @ 3 ml/s	
Time of Delay Injection to Sequence Start (s)	16	
NaCl		
Application Type	automated	
Volume @ Flow Rate	20 ml @ 3 ml/s	

## Summary of findings

Patient with CHD. Condition following cardiac catheterization. Procedure to exclude an arteriovenous fistula of the right inguinal region. Circular stenosis of the right superficial femoral artery in the MRA documentation. No evidence of a fistula.

## Technical note on procedure

A repeated acquisition of sequences analogous with the pelvic and lower limb arteries occurred 120 s after contrast agent administration. The data sets of the first-pass were then subtracted and post-processed as MIP.



[1 - 2] First-pass MRA with Gadofosveset: strong contrast enhancement of the abdominal aorta and pelvic arteries. In the overview and part-volume MIP, imaging of a high-grade stenosis of the right superficial femoral artery directly distal to the femoral bifurcation. No evidence of an AV fistula.



[3] The steady-state MRA of the pelvic veins was conducted to exclude a venous anomaly and thrombosis. It shows freely passable pelvic veins.