GATED THORACIC AORTA MRA 3.0T

INSTRUCTIONS AND PATIENT PREPARATION

Instructions	Respiratory bellows and vector gating optional: Reformat all Sagittal MRA into Axial and Coronal planes
Common Indication	Ascending aortic root pathology
Position	Supine
Coil	32 channel Torso, GEMS Body Array, or Air Coil
Landmark	Nipple Line

CONTRAST AGENT PARAMETERS

Contrast Agents	Dose	Injection Rate	Dose Timing Method and Scan Delay					
Gadopiclenol (VUEWAY)	0.05 mmol/kg up to a calculated volume of 10 mL OK to cap at 10 mL max volume for patients larger than 100 kg	Dilute to 30 mL @ 1.5 mL/sec	Fluoro trigger to peak arterial opacification of thoracic aorta					
Saline Flush	50 mL	1.5 mL/sec	Immediately following gadolinium					
Comments	Breathing	Expiration LVOT	Pre, Arterial = fluoro trigger Post 1 Expiration	Post 2 LOW FLIP Expiration	Expiration	Expiration	Expiration Flow analysis gated. 3 Slices (at, above, below)	Navigator centered at diaphragm

IMAGING PARAMETERS

Scan Description	3PL LOCALIZER SSFSE ARC	AXIAL Gated CINE	SAGITTAL 3D MRA	SAGITTAL 3D MRA LOW FLIP	CORONAL T1 LAVA-Flex	AXIAL T1 LAVA-Flex	Through Valve of Interest: 2D PC Flow Analysis	SAGITTAL 3D Heart
Mode	2D	2D	3D	3D	3D	3D	2D	3D
Pulse Sequence	SSFSE	SSFP	ceMRA-XV	ceMRA-XV	LAVA-Flex	LAVA-Flex	FAST Vasc PC	SPGR
Imaging Options	EDR, SEQ, ARC, FAST, SS	Card Gate, SEQ, FAST	FAST, EDR, ARC, ZIP2, ZIP512, FluoroTrig	FAST, EDR, ARC, ZIP2, ZIP512	EDR, FAST, ZIP2, ARC	EDR, FAST, ZIP2, ARC	GAT, ASSET, SEQ, FAST	GAT, FAST, ZIP512, ZIP2, ASSET, NAV

SCAN PARAMETERS

Scan Description	3PL LOCALIZER SSFSE ARC	AXIAL Gated CINE	SAGITTAL 3D MRA	SAGITTAL 3D MRA LOW FLIP	CORONAL T1 LAVA-Flex	AXIAL T1 LAVA-Flex	Through Valve of Interest: 2D PC Flow Analysis	SAGITTAL 3D Heart
TE	90	Min	Min	Min	Min	Min	Def	Min
TR	Min	Def (4.6)	Def	Def	Def	Def	Def (5.4)	—
Flip Angle	—	—	28	15	15	15	—	15
ETL	—	45	—	—	—	—	45	—
Bandwidth	83	—	83	62	142	142	31	125
SAT	—	125	—	—	—	—	—	—

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Supported by an educational grant from Bracco Diagnostics Inc.

MR Gadopiclenol (VUEWAY®) Protocol for GE HealthCare Systems
MR Angiography

IMAGING FORUMS, INC.

ACQUISITION PARAMETERS

Scan Description	3PL LOCALIZER SSFSE ARC	AXIAL Gated CINE	SAGITTAL 3D MRA	SAGITTAL 3D MRA LOW FLIP	CORONAL T1 LAVA-Flex	AXIAL T1 LAVA-Flex	Through Valve of Interest: 2D PC Flow Analysis	SAGITTAL 3D Heart
MATRIX freq	288	224	320	320	288	288	256	256
MATRIX phase	160	224	192	224	224	224	160	256
NEX	Def	1	1	1	1	1	1	1
Phase FOV	1	0.8	0.8	0.8	0.9	0.8	0.8	1
Freq Direction	Def	—	S/I	S/I	S/I	R/L	R/L	S/I
Accel	Ph 2	—	Ph 2, Sl 2	Ph 2, Sl 2	Ph 2, Sl 2	Ph 2, Sl 2	—	2
Adv CV	0, 240, 0	Arryth Rej Wn 10 Delay Min VPS 16 # Phases Recon 20	Turbo 2 Elip Cent 1 Slice Res 78%	Turbo 2 Elip Cent Slice Res 78%	CV6 1 CV30 1 CV36 70	CV6 1 CV30 1 CV36 70	Gate Tab: Arryth Rej Wn 10 Trig Del Min Phases 20 VPS 8 Vasc Tab: Recon Ph Diff VENC 150-200 FlwDr Slice Collape Off Fl Anlys On	—

SCANNING RANGE

Scan Description	3PL LOCALIZER SSFSE ARC	AXIAL Gated CINE	SAGITTAL 3D MRA	SAGITTAL 3D MRA LOW FLIP	CORONAL T1 LAVA-Flex	AXIAL T1 LAVA-Flex	Through Valve of Interest: 2D PC Flow Analysis	SAGITTAL 3D Heart
FOV	40	36	36-40	36-40	38	36	36	34
Slice Thickness	8	7	2	2	2	3	5	2.4
Spacing	0	0	0	0	0	0	0	0
Number of Slices	5-8 each Plane	Variable - see comments above	70 Slices PRN	70 Slices PRN	140 Locs	128 Locs	4-8 Segmentation	24
Approx Scan Time	0:46-0:54	± 8-15 sec per BH gating dependent	± 20 sec per BH	± 20 sec per BH	0:24	0:24	± 20 sec per BH	5:00

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