CARDIAC BASIC ANATOMY AND FUNCTION 1.5T

INSTRUCTIONS AND PATIENT PREPARATION

Instructions	• Cardiac vector gating • If coronaries are to be evaluated, reduce slice thickness to 5 mm and skip 0 mm for Double IR and Triple IR • Respiratory bellows • Breath hold all scans on expiration
Common Indications	Ischemic and non-ischemic cardiomyopathy (CMP)
Position	Supine
Coil	8-32 channel Cardiac or GEMS Array
Landmark	Nipple Line

CONTRAST AGENT PARAMETERS

Contrast Agents	Dose	Injection Rate	Dose Timing Method and Scan Delay
Gadopiclenol (VUEWAY)	0.075 mmol/kg up to a calculated volume of 10 mL	4 mL/sec	Injected during Perfusion. Consider injecting 1/3 the contrast for Perfusion and after the scan is finished inject the rest at a rate of 1 mL/sec
Saline Flush	50 mL	4 mL/sec	Immediately following gadolinium

Comments	Breath hold	3 Slice Mid Vent or if for Right Vent evaluation, then full stack copy and paste to acquire approx. 2 channel and 4 channel Locs	Short Axis, Double Oblique, Left Vent, Full Stack	Long Axis Views. 2 channel 3 channel 4 channel 3 Slices non-contiguous	Start scan, as soon as images start to appear, inject contrast at 4 mL/sec, once you visualize contrast have patient hold their breath for as long as they can	Inject contrast then wait 10 min for MDE. PREP TIME SCOUT--Use to determine TI time for MDE	10-45 min after injection. Delayed enhancement Short Axis and Long Axis views	Optional: 10-45 min after injection. Delayed enhancement Short Axis and Long Axis views	Optional: 10-45 min after injection. Delayed enhancement Short Axis and Long Axis views	Blood suppression must be done pre contrast	Blood suppression must be done pre contrast fat nulling

IMAGING PARAMETERS

Scan Description	3PL LOCALIZER	AXIAL Gated CINE	SA OBLIQUE Gated CINE	LA OBLIQUE Gated CINE	OBLIQUE Short Axis Perfusion	OBLIQUE 2D CINE IR	OBLIQUE Viability	OBLIQUE SSh Phase Sensitive Viability	OBLIQUE Phase Sensitive Viability	Optional: OBLIQUE Double IR T1 Gated	Optional: OBLIQUE Double IR T2 Fat
Mode	2D	2D	2D	2D	2D	2D	2D	2D	2D	2D	2D
Pulse Sequence	SSFSE	SSFP	SSFP	SSFP	FGRE	CINE-IR	FAST GRE	FIESTA	FAST GRE	FSE-XL	FSE-XL
Imaging Options	EDR, SEQ, FAST, SS, ARC	Card Gate, SEQ, EDR, FAST, ZIP512, ASSET	Card Gate, SEQ, EDR, FAST, ZIP512, ASSET	Card Gate, SEQ, EDR, FAST, ZIP512, ASSET	Card Gate, EDR, FAST, Mph, ASSET, SrP, MOCO	GAT, SEQ, FAST, ASSET IrP	Card Gate, FAST, IrP	Card Gate, SEQ, EDR, FAST, PS, ARC, IrP	Card Gate, EDR, FAST, PS, ARC, IrP	Card Gate, SEQ, EDR, FAST, ZIP512, BSP, ARC	Card Gate, SEQ, BSP, FAST

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Supported by an educational grant from Bracco Diagnostics Inc.

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

NW IMAGING FORUMS, INC.

SCAN PARAMETERS

Scan Description	3PL LOCALIZER	AXIAL Gated CINE	SA OBLIQUE Gated CINE	LA OBLIQUE Gated CINE	OBLIQUE Short Axis Perfusion	OBLIQUE 2D CINE IR	OBLIQUE Viability	OBLIQUE SSh Phase Sensitive Viability	OBLIQUE Phase Sensitive Viability	Optional: OBLIQUE Double IR T1 Gated	Optional: OBLIQUE Double IR T2 Fat
TE	90	Min	Min	Min	Min-Full	Min-Full	Min	Min-Full	Min	20	102
TR	1000	Def (4.6)	Def (4.6)	Def (4.6)	Def	Def (4.4)	Def (6.1)	Def	Def (6.1)	—	Def
TI	—	—	—	—	194	—	TI 250 - 320 PRN	TI 250 - 320 PRN	TI 250 - 320 PRN	BSP TI Auto (425)	BSP TI Auto Inv TI Auto
Flip Angle	—	45	45	45	35	5	20	20	20	155	155
ETL	—	—	—	—	—	—	—	—	—	12	32
Bandwidth	62	62	62	62	83	50	20	125	50	62	62

ACQUISITION PARAMETERS

Scan Description	3PL LOCALIZER	AXIAL Gated CINE	SA OBLIQUE Gated CINE	LA OBLIQUE Gated CINE	OBLIQUE Short Axis Perfusion	OBLIQUE 2D CINE IR	OBLIQUE Viability	OBLIQUE SSh Phase Sensitive Viability	OBLIQUE Phase Sensitive Viability	Optional: OBLIQUE Double IR T1 Gated	Optional: OBLIQUE Double IR T2 Fat
MATRIX freq	288	256	256	256	132	128	256	192	224	256	256
MATRIX phase	160	160	160	160	132	96	160	180	160	224	192
NEX	1	1	1	1	1	1	2	1	1	1	1
Phase FOV	1	0.8	0.8	0.8	0.8	0.8	1	1	1	1	1
Image Enhance	—	PURE	PURE	PURE	PURE	PURE	PURE	PURE	PURE	PURE	PURE
Accel	Ph 2	1	1	1	Ph 2	—	—	Ph 3	Ph 1	2	—
Adv CV	—	ArrRej 0	ArrRej 0	ArrRej 0	60 Phases (adjust to keep 1 min scan time)	IR Prep Pulse 1 Enhanced	—	IR Prep Pulse 1 Enhanced	IR Prep Pulse 1 Enhanced	CV14 1.25 CV19 1	CV14 3.33 CV19 1
Cardiac	—	Arryth Rej Wn 10 Delay Min VPS 16 # Phases Recon 20	Arryth Rej Wn 10 Delay Min VPS 16 # Phases Recon 20	Arryth Rej Wn 10 Delay Min VPS 16 # Phases Recon 20	#RR 1 Trigg Wind 20 Trigg Delay Rec	HR <80 1RR HR=>80 2RR Trigg Wind 30 Trigg Delay Rec VPS 8 # Phases Recon Auto	HR <80 1RR HR =>80 2RR Trigg Wind per Chart Trigg Delay per Chart VPS per Chart	#RR 2 Trigg Wind 10 Trigg Delay Rec	#RR 2 Trigg Wind 10 Trigg Delay Rec	#RR 2 Trigg Wind 10 Trigg Delay Min VPS 8	#RR 2 Trigg Wind 10 Trigg Delay Min VPS 8

SCANNING RANGE

Scan Description	3PL LOCALIZER	AXIAL Gated CINE	SA OBLIQUE Gated CINE	LA OBLIQUE Gated CINE	OBLIQUE Short Axis Perfusion	OBLIQUE 2D CINE IR	OBLIQUE Viability	OBLIQUE SSh Phase Sensitive Viability	OBLIQUE Phase Sensitive Viability	Optional: OBLIQUE Double IR T1 Gated	Optional: OBLIQUE Double IR T2 Fat
FOV	40	40	40	40	40	40	40	40	40	36	36
Slice Thickness	10	8	8	8	8	10	8	8	8	7	7
Spacing	0	2	2	—	10	0	2	0	2	1	1
Number of Slices	5-8 each Plane	Variable - see comments above	15-18	3	3-5	1	15-20	15-20	15-20	Variable	Variable
Approx. Scan Time	23 sec per BH, 0:46	± 8-15 sec per BH gating dependent	± 8-15 sec per BH gating dependent	± 8-15 sec per BH gating dependent	1:00	± 8-15 sec per BH gating dependent	± 8-15 sec per BH gating dependent	± 20-35 sec for full SA Stack gating dependent	± 8-15 sec per BH gating dependent	± 8-15 sec per BH gating dependent	± 8-15 sec per BH gating dependent

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