BRAIN NECK MR ANGIOGRAPHY/MR VENOGRAPHY (MRA/MRV) 3T

INSTRUCTIONS AND PATIENT PREPARATION

Instructions	• Exam consists of higher resolution sequences than the Stroke protocol • The Neck TOF sequences are typically done only if the contrasted neck sequences are limited • Injector recommended for CEMRA Coronal • Contrast sequences provide superior resolution and image quality in the neck • Inhance software useful for MRV sequences when needed
Position	Supine, head first
Coil	Head. If Neck is being imaged, use NVPA or HNU
Landmark	Glabella or chin

CONTRAST AGENT PARAMETERS

Contrast Agent	Dose	Injection Rate	Dose Timing Method and Scan Delay
Gadopiclenol (VUEWAY)	0.05 mmol/kg up to a calculated volume of 10 mL	1.5 mL/sec	TRICKS - Scan Mask, Scanner Pauses, inject contrast, wait 5 sec, then start scan
Saline Flush	10-20 mL	1.5 mL/sec	—
Comments	Report agent administered and dose		

IMAGING PARAMETERS

Scan Description	MRA AXIAL 3D TOF Brain	MRA AXIAL 2D TOF Neck	MRA AXIAL 3D TOF Neck	MRA CORONAL TRICKS Neck	MRV SAGITTAL 3D PC Post Gd if given	Post AXIAL T1 3D BRAVO	Optional MRV: CORONAL 2D TOF Head	Optional for Dissection: AXIAL 2D PDFSAT
Primary Sequence	Yes	Optional	Optional	Yes	Yes	No	Yes	Optional
Mode	3D	2D VASC	3D VASC	3D	3D	3D BRAVO	2D	2D
Pulse Sequence	3D TOF SPGR	TOF	3D TOF SPGR	TRICKS	Inh-Velocity/INHANCE	BRAVO	Vasc TOF	—
Imaging Options	FC, EDR, ZIP2, ASSET	FC, SEQ, FAST	FC, EDR, ZIP2, ZIP512	FAST, ZIP2, ASSET	ZIP2, ASSET	FAST, IRP, ZIP2, ASSET	FC, SEQ, FAST, ARC	TRF, FAST

SCAN PARAMETERS

Scan Description	MRA AXIAL 3D TOF Brain	MRA AXIAL 2D TOF Neck	MRA AXIAL 3D TOF Neck	MRA CORONAL TRICKS Neck	MRV SAGITTAL 3D PC Post Gd if given	Post AXIAL T1 3D BRAVO	Optional MRV: CORONAL 2D TOF Head	Optional for Dissection: AXIAL 2D PDFSAT
TR	32	Min	23	Min	Min	—	Min	2000
TE	Min	7	Out-of-Phase	Default	Min	—	Min	18
TI	—	—	—	—	—	450	—	—
Flip Angle	30	60	30	30	8	13	70	—
ETL	—	—	—	—	—	—	—	8
Bandwidth	31	32	31	83	31	25	32	41
Sat	S, Fat	S	S, Fat	—	—	—	I	Fat

Disclaimer: The MR Protocols information is provided by independent physicians and technologists and is not intended to provide definitive or complete medical instructional or treatment information. Products referenced herein should be used consistently with their package inserts, and any devices referenced herein should be used consistently with the operation instructions provided by their respective manufactures. Northwest Imaging Forums, Inc. and Bracco Diagnostics Inc. do not offer medical advice and shall not be responsible for any person's reliance on this protocol.

Supported by an educational grant from Bracco Diagnostics Inc.

MR Gadopiclenol (VUEWAY®) Protocol for GE HealthCare Systems
Central Nervous System

IMAGING FORUMS, INC.

ACQUISITION PARAMETERS

Scan Description	MRA AXIAL 3D TOF Brain	MRA AXIAL 2D TOF Neck	MRA AXIAL 3D TOF Neck	MRA CORONAL TRICKS Neck	MRV SAGITTAL 3D PC Post Gd if given	Post AXIAL T1 3D BRAVO	Optional MRV: CORONAL 2D TOF Head	Optional for Dissection: AXIAL 2D PDFSAT
MATRIX freq	448	256	320	256	320	256	320	288
MATRIX phase	224	192	224	160	224	256	192	224
NEX	1	1	1	0.75	1	1	1	2
Phase FOV	—	0.75	0.75	0.6	—	—	0.8	0.75
Freq Direction	—	—	—	S/I	S/I	A/P	S/I	A/P
Image Enhance	PURE	PURE	PURE	—	PURE	PURE	PURE	PURE
FC Direction	Slice	—	—	—	—	—	—	—
User CV	Proj-19 Collapse On Ramp Pulse IPL ACC=2	Proj-19 Collapes On Ramp Pulse IS ACC=2	Proj-19 Collapse On Ramp Pulse IPL ACC=2	TRICKS-18ph Pause On Delay Min Subtraction ACC=2 Advanced Tab Turbo Mode	Proj-16 FL Anyl On VENC-40 Magnitude ACC=2	ACC=2	Proj-19 Collapse On Ramp Pulse IPL ACC=2	—

SCANNING RANGE

Scan Description	MRA AXIAL 3D TOF Brain	MRA AXIAL 2D TOF Neck	MRA AXIAL 3D TOF Neck	MRA CORONAL TRICKS Neck	MRV SAGITTAL 3D PC Post Gd if given	Post AXIAL T1 3D BRAVO	Optional MRV: CORONAL 2D TOF Head	Optional for Dissection: AXIAL 2D PDFSAT
FOV	18	22	22	31	24 x 22	25	24	22
Slice Thickness	1.4	2	1.4	3	1.6	1.2	2	5
Spacing	12 Overlap	0	0	0	—	0	—	1
Number of Slices	3 Slabs of 40	—	32	24	—	128	—	18
Scan Time	~5 min	~5 min	~4 min	~1 min	4 min	3:30 min	~4-5 min	2:30 min

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