NW
IMAGING FORUMS, INC.

RECTAL CANCER 3T

INSTRUCTIONS AND PATIENT PREPARATION

Instructions	• Have patient empty bladder before scanning • Optional: Patient could take a Fleet enema prior to appointment • NPO for 4 hours prior to study recommended (reduces bowel motion) • Small field of view imaging must be angled to the mass • MD to check for Axial and Coronal Oblique angulations (true to rectal mass)
Common Indication	Rectal cancer staging
Position	Supine; head or feet first
Coil	Body Array (anterior); Spine Array (posterior)
Landmark	Center of coil; below belly button; adjust after LOC using ISO mode imaging

CONTRAST AGENT PARAMETERS

Contrast Agent	Dose	Injection Rate	Dose Timing Method and Scan Delay
Gadopiclenol (VUEWAY)	0.05 mmol/kg	2 mL/sec	Refer to postcontrast timing below
Saline Flush	20 mL	2 mL/sec	—
Comments	• Report agent administered and dose • Use minimal dose for patients with a GFR <30 mL/sec		

IMAGING PARAMETERS

Scan Description	3 PLANE HASTE LOCALIZER	AXIAL DWI	AXIAL T2 Hi Res	SAGITTAL T2 Hi Res	CORONAL T2 Hi Res	AXIAL 3D In-Out-of-Phase	SAGITTAL VIBE Pre	CORONAL VIBE Pre	AXIAL VIBE Pre	AXIAL VIBE Post Arterial 60 sec 180 sec	SAGITTAL VIBE Post 60 sec	CORONAL VIBE Post 60 sec 180 sec
Sequence Name	h	epse	tse	tse	tse	fl	fl	fl	fl	fl	fl	fl
Dimension	2D	—	2D	2D	2D	3D	3D	3D	3D	3D	3D	3D
Acceleration mode	GRAPPA	SMS	GRAPPA	GRAPPA	GRAPPA	CAIPIRINHA	CAIPIRINHA	CAIPIRINHA	CAIPIRINHA	CAIPIRINHA	CAIPIRINHA	CAIPIRINHA
Acceleration Factor PE	2	2	2	2	2	2	2	2	2	2	2	2
Acceleration Factor 3D	—	—	—	—	—	2	2	2	2	2	2	2

SCAN PARAMETERS

Scan Description	3 PLANE HASTE LOCALIZER	AXIAL DWI	AXIAL T2 Hi Res	SAGITTAL T2 Hi Res	CORONAL T2 Hi Res	AXIAL 3D In-Out-of-Phase	SAGITTAL VIBE Pre	CORONAL VIBE Pre	AXIAL VIBE Pre	AXIAL VIBE Post Arterial 60 sec 180 sec	SAGITTAL VIBE Post 60 sec	CORONAL VIBE Post 60 sec 180 sec
TR	1000 ms	3000 ms	5600 ms	5000 ms	4500 ms	4.3 ms	4.6 ms	4.6 ms	4.6 ms	4.6 ms	4.6 ms	4.6 ms
TE	112 ms	60 ms	111 ms	112 ms	111 ms	1: 1.34 ms 2: 2.76 ms	2.17 ms	2.17 ms	2.17 ms	2.17 ms	2.17 ms	2.17 ms
Flip Angle	105 deg	—	160 deg	160 deg	160 deg	9 deg	10 deg	10 deg	10 deg	10 deg	10 deg	10 deg
Turbo Factor	256	—	23	25	23	—	—	—	—	—	—	—
Bandwidth	698 Hz/Px	2084 Hz/Px	256 Hz/Px	200 Hz/Px	256 Hz/Px	870 Hz/Px	380 Hz/Px	380 Hz/Px	380 Hz/Px	380 Hz/Px	380 Hz/Px	380 Hz/Px
Fat-Water Contrast	Standard	SPAIR	Standard	Standard	Standard	Standard	Fast Fat Saturation	Fast Fat Saturation	Fast Fat Saturation	Fast Fat Saturation	Fast Fat Saturation	Fast Fat Saturation
Fat Saturation	—	Strong	—	—	—	—	—	—	—	—	—	—
Gradient Mode	Fast	Fast	Normal	Normal	Normal	Fast	Fast	Fast	Fast	Fast	Fast	Fast
RF Pulse Type	Normal	Low SAR	Low SAR	Low SAR	Low SAR	Fast	Fast	Fast	Fast	Fast	Fast	Fast
Asymmetric Echo	—	—	—	—	—	Off	Off	Off	Off	Off	Off	Off

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Supported by an educational grant from Bracco Diagnostics Inc.

MR Gadopiclenol (VUEWAY®) Protocol for Siemens MRI Scanners
Body MR Imaging

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ACQUISITION PARAMETERS

Scan Description	3 PLANE HASTE LOCALIZER	AXIAL DWI	AXIAL T2 Hi Res	SAGITTAL T2 Hi Res	CORONAL T2 Hi Res	AXIAL 3D In-Out-of-Phase	SAGITTAL VIBE Pre	CORONAL VIBE Pre	AXIAL VIBE Pre	AXIAL VIBE Post Arterial 60 sec 180 sec	SAGITTAL VIBE Post 60 sec	CORONAL VIBE Post 60 sec 180 sec
Base Resolution	256	160	320	320	320	320	256	256	256	256	256	256
Phase Resolution	100%	100%	100%	100%	100%	75%	75%	75%	75%	75%	75%	75%
Slice Resolution	—	—	—	—	—	57%	60%	60%	60%	60%	60%	60%
Averages	1	3	2	2	2	1	1	1	1	1	1	1
Concatenations	1	1	2	2	2	1	1	1	1	1	1	1
b-value >=	—	0 s/mm2 50 s/mm2 800 s/mm2	—	—	—	—	—	—	—	—	—	—
FoV Read	380 mm	380 mm	170 mm	200 mm	170 mm	380 mm	260 mm	260 mm	260 mm	260 mm	260 mm	260 mm
FoV Phase	100%	80%	100%	100%	100%	81%	100%	100%	100%	100%	100%	100%
Phase Encoding Dir.	R >> L	A >> P	R >> L	H >> F	R >> L	A >> P	A >> P	R >> L	A >> P	A >> P	A >> P	R >> L
Slice Oversampling	—	—	—	—	—	36%	33%	33%	20%	20%	33%	33%
Phase Partial Fourier	4/8	—	Allowed	Off	Allowed	Off	Off	Off	Off	Off	Off	Off
Slice Partial Fourier	—	—	—	—	—	7/8	6/8	6/8	6/8	6/8	6/8	6/8
Flow Compensation	None	—	None	None	None	—	—	—	—	—	—	—

SCANNING RANGE

Scan Description	3 PLANE HASTE LOCALIZER	AXIAL DWI	AXIAL T2 Hi Res	SAGITTAL T2 Hi Res	CORONAL T2 Hi Res	AXIAL 3D In-Out-of-Phase	SAGITTAL VIBE Pre	CORONAL VIBE Pre	AXIAL VIBE Pre	AXIAL VIBE Post Arterial 60 sec 180 sec	SAGITTAL VIBE Post 60 sec	CORONAL VIBE Post 60 sec 180 sec
Elliptical Filter	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off
Normalize	Prescan	Prescan	Prescan	Prescan	Prescan	Prescan	Prescan	Prescan	Prescan	Prescan	Prescan	Prescan
Distortion Correction	2D	2D	2D	2D	2D	2D	2D	2D	2D	2D	2D	2D
Slice Thickness	6.0 mm	7.0 mm	3.0 mm	3.0 mm	3.0 mm	3.0 mm	3.0 mm	3.0 mm	3.0 mm	3.0 mm	3.0 mm	3.0 mm
Distance Factor	175%	0%	0%	0%	0%	20%	20%	20%	20%	20%	20%	20%
Slices	13 Slices	36 Slices	45 Slices	34 Slices	36 Slices	88 Slices per Slab	72 Slices per Slab	72 Slices per Slab	80 Slices per Slab	80 Slices per Slab	72 Slices per Slab	72 Slices per Slab
Time of Acquisition	35 sec	1:51 min	5:26 min	4:12 min	4:23 min	19 sec	17 sec	19 sec	17 sec	17 sec	17 sec	19 sec

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