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\\USER\Test\Joseph\20210920_VASOremote\localizer

TA: 0:27 PM: FIX Voxel size: 0.5×0.5×3.0 mmPAT: Off Rel. SNR: 1.00 : qfl

Properties

Prio recon	On
Load images to viewer	On
Inline movie	Off
Auto store images	On
Load images to stamp segments	On
Load images to graphic segments	On
Auto open inline display	Off
Auto close inline display	Off
Start measurement without further preparation	Off
Wait for user to start	Off
Start measurements	Single measurement

Routine

Slice group	1
Slices	5
Dist. factor	200 %
Position	Isocenter
Orientation	Sagittal
Phase enc. dir.	A >> P
Slice group	2
Slices	5
Dist. factor	200 %
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
Slice group	3
Slices	5
Dist. factor	200 %
Position	Isocenter
Orientation	Coronal
Phase enc. dir.	R >> L
AutoAlign	---
Phase oversampling	0 %
FoV read	280 mm
FoV phase	100.0 %
Slice thickness	3.0 mm
TR	10.0 ms
TE	3.00 ms
Averages	1
Concatenations	15
Filter	Elliptical filter
Coil elements	H32

Contrast - Common

TR	10.0 ms
TE	3.00 ms
TD	0 ms
MTC	Off
Magn. preparation	None
Flip angle	10 deg
Fat suppr.	None
Water suppr.	None
SWI	Off

Contrast - Dynamic

Averages	1
Averaging mode	Short term
Reconstruction	Magnitude
Measurements	1

Contrast - Dynamic

Multiple series	Each measurement

Resolution - Common

FoV read	280 mm
FoV phase	100.0 %
Slice thickness	3.0 mm
Base resolution	256
Phase resolution	90 %
Phase partial Fourier	6/8
Interpolation	On

Resolution - iPAT

PAT mode	None

Resolution - Filter Image

Image Filter	Off
Distortion Corr.	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off

Resolution - Filter Rawdata

Raw filter	Off
Elliptical filter	On

Geometry - Common

Slice group	1
Slices	5
Dist. factor	200 %
Position	Isocenter
Orientation	Sagittal
Phase enc. dir.	A >> P
Slice group	2
Slices	5
Dist. factor	200 %
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
Slice group	3
Slices	5
Dist. factor	200 %
Position	Isocenter
Orientation	Coronal
Phase enc. dir.	R >> L
FoV read	280 mm
FoV phase	100.0 %
Slice thickness	3.0 mm
TR	10.0 ms
Multi-slice mode	Sequential
Series	Interleaved
Concatenations	15

Geometry - AutoAlign

Slice group	1
Position	Isocenter
Orientation	Sagittal
Phase enc. dir.	A >> P
Slice group	2
Position	Isocenter
Orientation	Transversal

Geometry - AutoAlign

Phase enc. dir.	A >> P
Slice group	3
Position	Isocenter
Orientation	Coronal
Phase enc. dir.	R >> L
AutoAlign	---
Initial Position	Isocenter
L	0.0 mm
P	0.0 mm
H	0.0 mm
Initial Rotation	0.00 deg
Initial Orientation	Sagittal

Geometry - Saturation

Saturation mode	Standard
Fat suppr.	None
Water suppr.	None
Special sat.	None

Geometry - Tim Planning Suite

Set-n-Go Protocol	Off
Table position	H
Table position	0 mm
Inline Composing	Off

Geometry - Tim CT

Tim CT mode	Off
Slices	5
Slice thickness	3.0 mm
Dist. factor	200 %
FoV read	280 mm
FoV phase	100.0 %
Segments	1

System - Miscellaneous

Positioning mode	FIX
Table position	F
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combine Mode	Sum of Squares
Save uncombined	Off
Matrix Optimization	Off
AutoAlign	---
Coil Select Mode	Off - AutoCoilSelect

System - Adjustments

B0 Shim mode	Tune up
B1 Shim mode	TrueForm
Confirm freq. adjustment	Off
Assume Dominant Fat	Off
Assume Silicone	Off
Adjustment Tolerance	Auto

System - Adjust Volume

Position	Isocenter
Orientation	Transversal
Rotation	0.00 deg
A >> P	263 mm
R >> L	350 mm
F >> H	350 mm
Reset	Off

System - pTx Volumes

B1 Shim mode	TrueForm
Excitation	Slice-sel.

System - Tx/Rx

Frequency 1H	297.210683 MHz
Correction factor	1
Gain	High
Img. Scale Cor.	1.000
Reset	Off
? Ref. amplitude 1H	0.000 V

Physio - Signal1

1st Signal/Mode	None
TR	10.0 ms
Concatenations	15
Segments	1

Physio - Cardiac

Tagging	None
Magn. preparation	None
Fat suppr.	None
Dark blood	Off
FoV read	280 mm
FoV phase	100.0 %
Phase resolution	90 %

Physio - PACE

Resp. control	Off
Concatenations	15

Inline - Common

Subtract	Off
Measurements	1
StdDev	Off
Liver registration	Off
Save original images	On

Inline - MIP

MIP-Sag	Off
MIP-Cor	Off
MIP-Tra	Off
MIP-Time	Off
Save original images	On

Inline - Soft Tissue

Wash - In	Off
Wash - Out	Off
TTP	Off
PEI	Off
MIP - time	Off
Measurements	1

Inline - Composing

Inline Composing	Off
Distortion Corr.	Off

Inline - MapIt

Save original images	On
MapIt	None
Flip angle	10 deg
Measurements	1
Contrasts	1
TR	10.0 ms

Inline - MapIt

TE	3.00 ms

Sequence - Part 1

Introduction	On
Dimension	2D
Phase stabilisation	Off
Asymmetric echo	Allowed
Contrasts	1
Flow comp.	No
Multi-slice mode	Sequential
Bandwidth	320 Hz/Px

Sequence - Part 2

Segments	1
Acoustic noise reduction	Active
RF pulse type	Normal
Gradient mode	Normal
Excitation	Slice-sel.
RF spoiling	On

Sequence - Assistant

Mode	Off

\\USER\Test\Joseph\20210920_VASOremote\tfl_b1map_200V

TA: 7.3 s PM: REF Voxel size: 4.7×4.7×8.0 mmPAT: Off Rel. SNR: 1.00 : tfl

Properties

Prio recon	Off
Load images to viewer	On
Inline movie	Off
Auto store images	On
Load images to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Auto close inline display	Off
Start measurement without further preparation	Off
Wait for user to start	Off
Start measurements	Single measurement

Routine

Slice group	1
Slices	8
Dist. factor	100 %
Position	L3.4 P20.7 F28.3 mm
Orientation	Transversal
Phase enc. dir.	A >> P
AutoAlign	---
Phase oversampling	0 %
FoV read	300 mm
FoV phase	100.0 %
Slice thickness	8.0 mm
TR	3140.0 ms
TE	1.78 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	R96

Contrast - Common

TR	3140.0 ms
TE	1.78 ms
Magn. preparation	None
Flip angle	8 deg
Fat suppr.	None
Water suppr.	None

Contrast - Dynamic

Averages	1
Reconstruction	Magnitude
Measurements	1
Multiple series	Each measurement

Resolution - Common

FoV read	300 mm
FoV phase	100.0 %
Slice thickness	8.0 mm
Base resolution	64
Phase resolution	100 %
Phase partial Fourier	Off
Interpolation	Off

Resolution - iPAT

PAT mode	None

Resolution - Filter Image

Image Filter	Off

Resolution - Filter Image

Distortion Corr.	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off

Resolution - Filter Rawdata

Raw filter	Off
Elliptical filter	Off

Geometry - Common

Slice group	1
Slices	8
Dist. factor	100 %
Position	L3.4 P20.7 F28.3 mm
Orientation	Transversal
Phase enc. dir.	A >> P
FoV read	300 mm
FoV phase	100.0 %
Slice thickness	8.0 mm
TR	3140.0 ms
Multi-slice mode	Interleaved
Series	Interleaved
Concatenations	1

Geometry - AutoAlign

Slice group	1
Position	L3.4 P20.7 F28.3 mm
Orientation	Transversal
Phase enc. dir.	A >> P
AutoAlign	---
Initial Position	L3.4 P20.7 F28.3
L	3.4 mm
P	20.7 mm
F	28.3 mm
Initial Rotation	0.00 deg
Initial Orientation	Transversal

Geometry - Tim Planning Suite

Set-n-Go Protocol	Off
Table position	H
Table position	0 mm
Inline Composing	Off

System - Miscellaneous

Positioning mode	REF
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combine Mode	Sum of Squares
Save uncombined	Off
Matrix Optimization	Off
AutoAlign	---
Coil Select Mode	Default

System - Adjustments

B0 Shim mode	Tune up
B1 Shim mode	TrueForm

System - Adjustments

Confirm freq. adjustment	Off
Assume Dominant Fat	Off
Assume Silicone	Off
Adjustment Tolerance	Auto

System - Adjust Volume

Position	Isocenter
Orientation	Transversal
Rotation	0.00 deg
A >> P	263 mm
R >> L	350 mm
F >> H	350 mm
Reset	Off

System - pTx Volumes

B1 Shim mode	TrueForm
Excitation	Slice-sel.

System - Tx/Rx

Frequency 1H	297.210683 MHz
Correction factor	1
Gain	High
Img. Scale Cor.	1.000
Reset	Off
! Ref. amplitude 1H	200.000 V

Inline - Common

Subtract	Off
Measurements	1
StdDev	Off
Save original images	On

Inline - MIP

MIP-Sag	Off
MIP-Cor	Off
MIP-Tra	Off
MIP-Time	Off
Save original images	On

Inline - Composing

Inline Composing	Off
Distortion Corr.	Off

Sequence - Part 1

Introduction	Off
Dimension	2D
Asymmetric echo	Allowed
Flow comp.	No
Multi-slice mode	Interleaved
Echo spacing	4.9 ms
Bandwidth	490 Hz/Px

Sequence - Part 2

RF pulse type	Low SAR
Gradient mode	Normal
Excitation	Slice-sel.
RF spoiling	On
Turbo factor	64

Sequence - Assistant

Mode	Off

\\USER\Test\Joseph\20210920_VASOremote\rslh_ep3d_vaso_0p8_1p34

TA: 0:10 PM: REF Voxel size: 0.8×0.8×1.3 mmPAT: 3 Rel. SNR: 1.00 : d238999c

Properties

Prio recon	Off
Load images to viewer	On
Inline movie	Off
Auto store images	On
Load images to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Auto close inline display	Off
Start measurement without further preparation	Off
Wait for user to start	Off
Start measurements	Single measurement

Routine

Slab group	1
Slabs	1
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
AutoAlign	---
Slab Scale	-10 %
Slices per slab	24
FoV read	177 mm
FoV phase	100.0 %
Slice thickness	1.34 mm
TR 1	81.6 ms
TR 2	5023 ms
TE 1	31.10 ms
Averages	1
Multi-echo Shots	1
Filter	None
Coil elements	H32

Contrast - Common

TR 1	81.6 ms
TR 2	5023 ms
TE 1	31.10 ms
Multi-echo spacing	71.68 ms
Magn. preparation	Non-sel. HSN IR
TI 1	1639.2 ms
TI 2	3597.6 ms
Flip angle	60 deg
Fat suppr.	Fat sat.
Magn. Prep. Shots	1

Contrast - Dynamic

Averages	1
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	1

Resolution - Common

FoV read	177 mm
FoV phase	100.0 %
Slice thickness	1.34 mm
Base resolution	216
Phase resolution	100 %
Slice resolution	100 %
Phase partial Fourier	6/8
Slice partial Fourier	Off

Resolution - Common

Interpolation	Off

Resolution - iPAT

PAT mode	CAIPIRINHA
Acc. factor PE	3
Ref. lines PE	45
Acc. factor 3D	1
Ref. lines 3D	24
CAIPI 3D Shift	0
Reference Scan Mode	GRE/separate
CAIPIRINHA mode	Free

Resolution - Filter Image

Image Filter	Off
Distortion Corr.	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off

Resolution - Filter Rawdata

Raw filter	Off
Elliptical filter	Off

Geometry - Common

Slab group	1
Slabs	1
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
Slab Scale	-10 %
Slices per slab	24
FoV read	177 mm
FoV phase	100.0 %
Slice thickness	1.34 mm
TR 1	81.6 ms
TR 2	5023 ms
Multi-slice mode	Interleaved
Series	Ascending
Multi-echo Shots	1

Geometry - AutoAlign

Slab group	1
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
AutoAlign	---
Initial Position	Isocenter
L	0.0 mm
P	0.0 mm
H	0.0 mm
Initial Rotation	0.00 deg
Initial Orientation	Transversal

Geometry - Saturation

Saturation mode	Standard
Fat suppr.	Fat sat.

Geometry - Tim Planning Suite

Set-n-Go Protocol	Off
Table position	H

Geometry - Tim Planning Suite

Table position	0 mm
Inline Composing	Off

System - Miscellaneous

Positioning mode	REF
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combine Mode	Sum of Squares
Save uncombined	Off
Matrix Optimization	Off
AutoAlign	---
Coil Select Mode	Default

System - Adjustments

B0 Shim mode	Standard
B1 Shim mode	TrueForm
Confirm freq. adjustment	Off
Assume Dominant Fat	Off
Assume Silicone	Off
Adjustment Tolerance	Auto

System - Adjust Volume

Position	Isocenter
Orientation	Transversal
Rotation	0.00 deg
A >> P	177 mm
R >> L	177 mm
F >> H	33 mm
Reset	Off

System - pTx Volumes

B1 Shim mode	TrueForm
Excitation	Slab-sel.

System - Tx/Rx

Frequency 1H	297.210683 MHz
Correction factor	1
Gain	Low
Img. Scale Cor.	1.000
Reset	Off
? Ref. amplitude 1H	0.000 V

Sequence - Part 1

Introduction	On
Dimension	3D
Reordering	Linear
Asymmetric echo	Off
Contrasts	1
Multi-slice mode	Interleaved
Echo spacing	1.32 ms
Bandwidth	798 Hz/Px

Sequence - Part 2

EPI factor	54
Segmentation	1
RF pulse type	Normal
Gradient mode	Fast
Excitation	Slab-sel.
RF spoiling	On

Sequence - Part 2

Turbo factor	24

Sequence - Special

PATRef FA	3 deg
RF duration	1100 us
RF BWT product	8
Ernst T1	1200 ms
PATRef prep. shots	10
Volume dummy shots	0
Dummy Measurements	0
CHECK FLIP ANGLE!	On
Invert PE	Off
Min. TE if PF	On
Echo Time Shift	On
Ramp Sampling	On
NORDIC	Off
Water Exc.	-none-
External PC	-none-
Saturation RF	per Shot
EPI rise time factor	1.10
Mosaic DICOMs	On
Modify Ice Config	Off
HSN RF power scale	3.00
Inversion Delay	650 ms
Relaxation Delay	0 ms
Var. FA /MAGEC	4

Sequence - Assistant

Mode	Off

\\USER\Test\Joseph\20210920_VASOremote\rslh_ep3d_vaso_p5_protocol

TA: 0:15 PM: REF Voxel size: 0.5×0.5×0.5 mmPAT: 3 Rel. SNR: 1.00 : d238999c

Properties

Prio recon	Off
Load images to viewer	On
Inline movie	Off
Auto store images	On
Load images to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Auto close inline display	Off
Start measurement without further preparation	Off
Wait for user to start	Off
Start measurements	Single measurement

Routine

Slab group	1
Slabs	1
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
AutoAlign	---
Slab Scale	-10 %
Slices per slab	24
FoV read	186 mm
FoV phase	100.0 %
Slice thickness	0.50 mm
TR 1	78.1 ms
TR 2	8391 ms
TE 1	27.60 ms
Averages	1
Multi-echo Shots	1
Filter	None
Coil elements	H32

Contrast - Common

TR 1	78.1 ms
TR 2	8391 ms
TE 1	27.60 ms
Multi-echo spacing	39.79 ms
Magn. preparation	Non-sel. HSN IR
TI 1	1884.4 ms
TI 2	5633.2 ms
Flip angle	40 deg
Fat suppr.	Fat sat.
Magn. Prep. Shots	1

Contrast - Dynamic

Averages	1
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	1

Resolution - Common

FoV read	186 mm
FoV phase	100.0 %
Slice thickness	0.50 mm
Base resolution	374
Phase resolution	100 %
Slice resolution	100 %
Phase partial Fourier	6/8
Slice partial Fourier	Off

Resolution - Common

Interpolation	Off

Resolution - iPAT

PAT mode	CAIPIRINHA
Acc. factor PE	3
Ref. lines PE	75
Acc. factor 3D	1
Ref. lines 3D	22
CAIPI 3D Shift	0
Reference Scan Mode	GRE/separate
CAIPIRINHA mode	Free

Resolution - Filter Image

Image Filter	Off
Distortion Corr.	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off

Resolution - Filter Rawdata

Raw filter	Off
Elliptical filter	Off

Geometry - Common

Slab group	1
Slabs	1
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
Slab Scale	-10 %
Slices per slab	24
FoV read	186 mm
FoV phase	100.0 %
Slice thickness	0.50 mm
TR 1	78.1 ms
TR 2	8391 ms
Multi-slice mode	Interleaved
Series	Ascending
Multi-echo Shots	1

Geometry - AutoAlign

Slab group	1
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
AutoAlign	---
Initial Position	Isocenter
L	0.0 mm
P	0.0 mm
H	0.0 mm
Initial Rotation	0.00 deg
Initial Orientation	Transversal

Geometry - Saturation

Saturation mode	Standard
Fat suppr.	Fat sat.

Geometry - Tim Planning Suite

Set-n-Go Protocol	Off
Table position	H

Geometry - Tim Planning Suite

Table position	0 mm
Inline Composing	Off

System - Miscellaneous

Positioning mode	REF
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combine Mode	Sum of Squares
Save uncombined	Off
Matrix Optimization	Off
AutoAlign	---
Coil Select Mode	Default

System - Adjustments

B0 Shim mode	Standard
B1 Shim mode	TrueForm
Confirm freq. adjustment	Off
Assume Dominant Fat	Off
Assume Silicone	Off
Adjustment Tolerance	Auto

System - Adjust Volume

Position	Isocenter
Orientation	Transversal
Rotation	0.00 deg
A >> P	186 mm
R >> L	186 mm
F >> H	12 mm
Reset	Off

System - pTx Volumes

B1 Shim mode	TrueForm
Excitation	Slab-sel.

System - Tx/Rx

Frequency 1H	297.210683 MHz
Correction factor	1
Gain	Low
Img. Scale Cor.	1.000
Reset	Off
? Ref. amplitude 1H	0.000 V

Sequence - Part 1

Introduction	On
Dimension	3D
Reordering	Linear
Asymmetric echo	Off
Contrasts	1
Multi-slice mode	Interleaved
Echo spacing	0.83 ms
Bandwidth	1336 Hz/Px

Sequence - Part 2

EPI factor	47
Segmentation	2
RF pulse type	Normal
Gradient mode	Fast
Excitation	Slab-sel.
RF spoiling	On

Sequence - Part 2

Turbo factor	48

Sequence - Special

PATRef FA	3 deg
RF duration	1000 us
RF BWT product	15
Ernst T1	1200 ms
PATRef prep. shots	10
Volume dummy shots	0
Dummy Measurements	0
CHECK FLIP ANGLE!	On
Invert PE	Off
Min. TE if PF	On
Echo Time Shift	On
Ramp Sampling	On
NORDIC	Off
Water Exc.	-none-
External PC	-none-
Saturation RF	per Shot
EPI rise time factor	1.10
Mosaic DICOMs	On
Modify Ice Config	Off
HSN RF power scale	2.00
Inversion Delay	0 ms
Relaxation Delay	0 ms
Var. FA /MAGEC	4

Sequence - Assistant

Mode	Off

\\USER\Test\Joseph\20210920_VASOremote\rsIh_ep3d_vaso_p45_Renzo

TA: 0:37 PM: REF Voxel size: 0.5×0.5×0.4 mmPAT: 3 Rel. SNR: 1.00 : d238999c

Properties

Prio recon	Off
Load images to viewer	On
Inline movie	Off
Auto store images	On
Load images to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Auto close inline display	Off
Start measurement without further preparation	Off
Wait for user to start	Off
Start measurements	Single measurement

Routine

Slab group	1
Slabs	1
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
AutoAlign	---
Slab Scale	-10 %
Slices per slab	18
FoV read	170 mm
FoV phase	100.0 %
Slice thickness	0.45 mm
TR 1	54.4 ms
TR 2	5912 ms
TE 1	19.00 ms
Averages	1
Multi-echo Shots	1
Filter	Distortion Corr.(3D)
Coil elements	R96

Contrast - Common

TR 1	54.4 ms
TR 2	5912 ms
TE 1	19.00 ms
Multi-echo spacing	50.67 ms
Magn. preparation	Non-sel. HSN IR
TI 1	1149.6 ms
TI 2	2128.8 ms
Flip angle	40 deg
Fat suppr.	Fat sat.
Magn. Prep. Shots	2

Contrast - Dynamic

Averages	1
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	5
Pause after meas. 1	0.0 s
Pause after meas. 2	0.0 s
Pause after meas. 3	0.0 s
Pause after meas. 4	0.0 s

Resolution - Common

FoV read	170 mm
FoV phase	100.0 %
Slice thickness	0.45 mm
Base resolution	374

Resolution - Common

Phase resolution	100 %
Slice resolution	100 %
Phase partial Fourier	6/8
Slice partial Fourier	Off
Interpolation	Off

Resolution - iPAT

PAT mode	CAIPIRINHA
Acc. factor PE	3
Ref. lines PE	75
Acc. factor 3D	1
Ref. lines 3D	16
CAIPI 3D Shift	0
Reference Scan Mode	GRE/separate
CAIPIRINHA mode	Free

Resolution - Filter Image

Image Filter	Off
Distortion Corr.	On
Mode	3D
Unfiltered images	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off

Resolution - Filter Rawdata

Raw filter	Off
Elliptical filter	Off

Geometry - Common

Slab group	1
Slabs	1
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
Slab Scale	-10 %
Slices per slab	18
FoV read	170 mm
FoV phase	100.0 %
Slice thickness	0.45 mm
TR 1	54.4 ms
TR 2	5912 ms
Multi-slice mode	Interleaved
Series	Ascending
Multi-echo Shots	1

Geometry - AutoAlign

Slab group	1
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
AutoAlign	---
Initial Position	Isocenter
L	0.0 mm
P	0.0 mm
H	0.0 mm
Initial Rotation	0.00 deg
Initial Orientation	Transversal

Geometry - Saturation

Saturation mode	Standard
Fat suppr.	Fat sat.

Geometry - Tim Planning Suite

Set-n-Go Protocol	Off
Table position	H
Table position	0 mm
Inline Composing	Off

System - Miscellaneous

Positioning mode	REF
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combine Mode	Sum of Squares
Save uncombined	Off
Matrix Optimization	Off
AutoAlign	---
Coil Select Mode	Default

System - Adjustments

B0 Shim mode	Standard
B1 Shim mode	TrueForm
Confirm freq. adjustment	Off
Assume Dominant Fat	Off
Assume Silicone	Off
Adjustment Tolerance	Auto

System - Adjust Volume

Position	Isocenter
Orientation	Transversal
Rotation	0.00 deg
A >> P	170 mm
R >> L	170 mm
F >> H	9 mm
Reset	Off

System - pTx Volumes

B1 Shim mode	TrueForm
Excitation	Slab-sel.

System - Tx/Rx

Frequency 1H	297.210683 MHz
Correction factor	1
Gain	High
Img. Scale Cor.	1.000
Reset	Off
! Ref. amplitude 1H	200.000 V

Sequence - Part 1

Introduction	On
Dimension	3D
Reordering	Linear
Asymmetric echo	Off
Contrasts	1
Multi-slice mode	Interleaved
Echo spacing	1.06 ms
Bandwidth	1028 Hz/Px

Sequence - Part 2

EPI factor	47
Segmentation	2
RF pulse type	Normal
Gradient mode	Fast
Excitation	Slab-sel.
RF spoiling	On
Turbo factor	18

Sequence - Special

PATRef FA	3 deg
RF duration	2000 us
RF BWT product	15
Ernst T1	1200 ms
PATRef prep. shots	10
Volume dummy shots	0
Dummy Measurements	0
Invert PE	Off
Min. TE if PF	On
Echo Time Shift	On
Ramp Sampling	On
NORDIC	On
Water Exc.	-none-
External PC	per Series
Saturation RF	per Shot
EPI rise time factor	1.00
Mosaic DICOMs	On
Modify Ice Config	On
GRAPPA Regularization	50000 10^-6
HSN RF power scale	2.50
Inversion Delay	650 ms
Relaxation Delay	0 ms
Var. FA /MAGEC	4

Sequence - Assistant

Mode	Off

\\USER\Test\Joseph\20210920_VASOremote\rslh_ep3d_vaso_p5_protocol_Renzo_20210927

TA: 9:59 PM: REF Voxel size: 0.5×0.5×0.4 mmPAT: 3 Rel. SNR: 1.00 : d238999c

Properties

Prio recon	Off
Load images to viewer	On
Inline movie	Off
Auto store images	On
Load images to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Auto close inline display	Off
Start measurement without further preparation	Off
Wait for user to start	Off
Start measurements	Single measurement

Routine

Slab group	1
Slabs	1
Position	L0.0 P33.7 H21.0 mm
Orientation	C > T-44.3
Phase enc. dir.	R >> L
AutoAlign	---
Slab Scale	-10 %
Slices per slab	18
FoV read	170 mm
FoV phase	100.0 %
Slice thickness	0.45 mm
TR 1	54.4 ms
TR 2	5912 ms
TE 1	19.00 ms
Averages	1
Multi-echo Shots	1
Filter	Distortion Corr.(3D)
Coil elements	R96

Contrast - Common

TR 1	54.4 ms
TR 2	5912 ms
TE 1	19.00 ms
Multi-echo spacing	50.67 ms
Magn. preparation	Non-sel. HSN IR
TI 1	1149.6 ms
TI 2	2128.8 ms
Flip angle	40 deg
Fat suppr.	Fat sat.
Magn. Prep. Shots	2

Contrast - Dynamic

Averages	1
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	100
Pause after meas.	0.0 s

Resolution - Common

FoV read	170 mm
FoV phase	100.0 %
Slice thickness	0.45 mm
Base resolution	374
Phase resolution	100 %
Slice resolution	100 %
Phase partial Fourier	6/8

Resolution - Common

Slice partial Fourier	Off
Interpolation	Off

Resolution - iPAT

PAT mode	CAIPIRINHA
Acc. factor PE	3
Ref. lines PE	75
Acc. factor 3D	1
Ref. lines 3D	16
CAIPI 3D Shift	0
Reference Scan Mode	GRE/separate
CAIPIRINHA mode	Free

Resolution - Filter Image

Image Filter	Off
Distortion Corr.	On
Mode	3D
Unfiltered images	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off

Resolution - Filter Rawdata

Raw filter	Off
Elliptical filter	Off

Geometry - Common

Slab group	1
Slabs	1
Position	L0.0 P33.7 H21.0 mm
Orientation	C > T-44.3
Phase enc. dir.	R >> L
Slab Scale	-10 %
Slices per slab	18
FoV read	170 mm
FoV phase	100.0 %
Slice thickness	0.45 mm
TR 1	54.4 ms
TR 2	5912 ms
Multi-slice mode	Interleaved
Series	Ascending
Multi-echo Shots	1

Geometry - AutoAlign

Slab group	1
Position	L0.0 P33.7 H21.0 mm
Orientation	C > T-44.3
Phase enc. dir.	R >> L
AutoAlign	---
Initial Position	L0.0 P33.7 H21.0
L	0.0 mm
P	33.7 mm
H	21.0 mm
Initial Rotation	0.00 deg
Initial Orientation	C > T
C > T	-44.3
> S	0.0

Geometry - Saturation

Saturation mode	Standard

Geometry - Saturation

Fat suppr.	Fat sat.

Geometry - Tim Planning Suite

Set-n-Go Protocol	Off
Table position	H
Table position	0 mm
Inline Composing	Off

System - Miscellaneous

Positioning mode	REF
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combine Mode	Sum of Squares
Save uncombined	Off
Matrix Optimization	Off
AutoAlign	---
Coil Select Mode	Default

System - Adjustments

B0 Shim mode	Standard
B1 Shim mode	TrueForm
Confirm freq. adjustment	Off
Assume Dominant Fat	Off
Assume Silicone	Off
Adjustment Tolerance	Auto

System - Adjust Volume

! Position	L0.0 P24.7 H11.4 mm
! Orientation	C > T-44.3
! Rotation	0.00 deg
! R >> L	170 mm
! F >> H	170 mm
! A >> P	47 mm
Reset	Off

System - pTx Volumes

B1 Shim mode	TrueForm
Excitation	Slab-sel.

System - Tx/Rx

Frequency 1H	297.210683 MHz
Correction factor	1
Gain	High
Img. Scale Cor.	0.600
Reset	Off
? Ref. amplitude 1H	0.000 V

Sequence - Part 1

Introduction	On
Dimension	3D
Reordering	Linear
Asymmetric echo	Off
Contrasts	1
Multi-slice mode	Interleaved
Echo spacing	1.06 ms
Bandwidth	1028 Hz/Px

Sequence - Part 2

EPI factor	47

Sequence - Part 2

Segmentation	2
RF pulse type	Normal
Gradient mode	Fast
Excitation	Slab-sel.
RF spoiling	On
Turbo factor	18

Sequence - Special

PATRef FA	3 deg
RF duration	2000 us
RF BWT product	15
Ernst T1	1200 ms
PATRef prep. shots	10
Volume dummy shots	0
Dummy Measurements	0
Invert PE	Off
Min. TE if PF	On
Echo Time Shift	On
Ramp Sampling	On
NORDIC	On
Water Exc.	-none-
External PC	per Series
Saturation RF	per Shot
EPI rise time factor	1.00
Mosaic DICOMs	On
Modify Ice Config	On
GRAPPA Regularization	50000 10^-6
HSN RF power scale	2.50
Inversion Delay	650 ms
Relaxation Delay	0 ms
Var. FA /MAGEC	4

Sequence - Assistant

Mode	Off

\\USER\Test\Joseph\20210920_VASOremote\t1_mp2rage_axi_ipat2_0.35mm_TI284_SLAB

TA: 27:02 PM: FIX Voxel size: 0.3×0.3×0.3 mmPAT: 2 Rel. SNR: 1.00 : tfl

Properties

Prio recon	Off
Load images to viewer	On
Inline movie	Off
Auto store images	On
Load images to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Auto close inline display	Off
Start measurement without further preparation	Off
Wait for user to start	Off
Start measurements	Single measurement

Routine

Slab group	1
Slabs	1
Dist. factor	50 %
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
AutoAlign	Head > Basis
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	72
FoV read	180 mm
FoV phase	98.5 %
Slice thickness	0.35 mm
TR	5000.0 ms
TE	3.22 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	R96

Contrast - Common

TR	5000.0 ms
TE	3.22 ms
Magn. preparation	Non-sel. IR
TI 1	1090 ms
TI 2	3500 ms
Flip angle 1	9.0 deg
Flip angle 2	7.0 deg
Fat suppr.	None
Water suppr.	None

Contrast - Dynamic

Averages	1
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	6
Pause after meas. 1	0.0 s
Pause after meas. 2	0.0 s
Pause after meas. 3	0.0 s
Pause after meas. 4	0.0 s
Pause after meas. 5	0.0 s
Multiple series	Each measurement

Resolution - Common

FoV read	180 mm
FoV phase	98.5 %

Resolution - Common

Slice thickness	0.35 mm
Base resolution	520
Phase resolution	100 %
Slice resolution	100 %
Phase partial Fourier	Off
Slice partial Fourier	6/8
Interpolation	Off

Resolution - iPAT

PAT mode	GRAPPA
Accel. factor PE	2
Ref. lines PE	24
Accel. factor 3D	1
Reference scan mode	Integrated

Resolution - Filter Image

Image Filter	Off
Distortion Corr.	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off

Resolution - Filter Rawdata

Raw filter	Off
Elliptical filter	Off

Geometry - Common

Slab group	1
Slabs	1
Dist. factor	50 %
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
Slice oversampling	0.0 %
Slices per slab	72
FoV read	180 mm
FoV phase	98.5 %
Slice thickness	0.35 mm
TR	5000.0 ms
Multi-slice mode	Single shot
Series	Interleaved
Concatenations	1

Geometry - AutoAlign

Slab group	1
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
AutoAlign	Head > Basis
Initial Position	Isocenter
L	0.0 mm
P	0.0 mm
H	0.0 mm
Initial Rotation	0.00 deg
Initial Orientation	Transversal

Geometry - Navigator

Geometry - Tim Planning Suite

Set-n-Go Protocol	Off

Geometry - Tim Planning Suite

Table position	H
Table position	0 mm
Inline Composing	Off

System - Miscellaneous

Positioning mode	FIX
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combine Mode	Sum of Squares
Save uncombined	Off
Matrix Optimization	Off
AutoAlign	Head > Basis
Coil Select Mode	Default

System - Adjustments

B0 Shim mode	Standard
B1 Shim mode	TrueForm
Confirm freq. adjustment	Off
Assume Dominant Fat	Off
Assume Silicone	Off
Adjustment Tolerance	Auto

System - Adjust Volume

Position	Isocenter
Orientation	Transversal
Rotation	0.00 deg
A >> P	178 mm
R >> L	180 mm
F >> H	26 mm
Reset	Off

System - pTx Volumes

B1 Shim mode	TrueForm
Excitation	Slab-sel.

System - Tx/Rx

Frequency 1H	297.210683 MHz
Correction factor	1
Gain	High
Img. Scale Cor.	1.000
Reset	Off
! Ref. amplitude 1H	200.000 V

Physio - Signal1

1st Signal/Mode	None
TR	5000.0 ms
Concatenations	1

Physio - Cardiac

Magn. preparation	Non-sel. IR
TI 1	1090 ms
TI 2	3500 ms
Fat suppr.	None
Dark blood	Off
FoV read	180 mm
FoV phase	98.5 %
Phase resolution	100 %

Physio - PACE

Resp. control	Off
Concatenations	1

Inline - Common

Subtract	Off
Measurements	6
StdDev	Off
Save original images	On

Inline - MIP

MIP-Sag	Off
MIP-Cor	Off
MIP-Tra	Off
MIP-Time	Off
Save original images	On

Inline - Composing

Inline Composing	Off
Distortion Corr.	Off

Inline - MapIt

Save original images	On
MapIt	None
Flip angle 1	9.0 deg
Flip angle 2	7.0 deg
Measurements	6
TR	5000.0 ms
TE	3.22 ms

Sequence - Part 1

Introduction	On
Dimension	3D
Elliptical scanning	Off
Reordering	Linear rot.
Asymmetric echo	Allowed
Flow comp.	No
Multi-slice mode	Single shot
Echo spacing	8 ms
Bandwidth	250 Hz/Px

Sequence - Part 2

RF pulse type	Normal
Gradient mode	Fast
Excitation	Slab-sel.
RF spoiling	On
Incr. Gradient spoiling	Off
Turbo factor	511

Sequence - Assistant

Mode	Off

\\USER\Test\Joseph\20210920_VASOremote\rslh_ep3d_vaso_p45_Renzo_bino

TA: 0:33 PM: REF Voxel size: 0.5×0.5×0.4 mmPAT: 3 Rel. SNR: 1.00 : d238999c

Properties

Prio recon	Off
Load images to viewer	On
Inline movie	Off
Auto store images	On
Load images to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Auto close inline display	Off
Start measurement without further preparation	Off
Wait for user to start	Off
Start measurements	Single measurement

Routine

Slab group	1
Slabs	1
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
AutoAlign	---
Slab Scale	-10 %
Slices per slab	18
FoV read	170 mm
FoV phase	100.0 %
Slice thickness	0.45 mm
TR 1	55.3 ms
TR 2	5322 ms
TE 1	19.50 ms
Averages	1
Multi-echo Shots	1
Filter	Distortion Corr.(3D)
Coil elements	R96

Contrast - Common

TR 1	55.3 ms
TR 2	5322 ms
TE 1	19.50 ms
Multi-echo spacing	50.67 ms
Magn. preparation	Non-sel. HSN IR
TI 1	1157.7 ms
TI 2	2153.1 ms
Flip angle	40 deg
Fat suppr.	None
Magn. Prep. Shots	2

Contrast - Dynamic

Averages	1
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	5
Pause after meas. 1	0.0 s
Pause after meas. 2	0.0 s
Pause after meas. 3	0.0 s
Pause after meas. 4	0.0 s

Resolution - Common

FoV read	170 mm
FoV phase	100.0 %
Slice thickness	0.45 mm
Base resolution	374

Resolution - Common

Phase resolution	100 %
Slice resolution	100 %
Phase partial Fourier	6/8
Slice partial Fourier	Off
Interpolation	Off

Resolution - iPAT

PAT mode	CAIPIRINHA
Acc. factor PE	3
Ref. lines PE	75
Acc. factor 3D	1
Ref. lines 3D	16
CAIPI 3D Shift	0
Reference Scan Mode	GRE/separate
CAIPIRINHA mode	Free

Resolution - Filter Image

Image Filter	Off
Distortion Corr.	On
Mode	3D
Unfiltered images	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off

Resolution - Filter Rawdata

Raw filter	Off
Elliptical filter	Off

Geometry - Common

Slab group	1
Slabs	1
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
Slab Scale	-10 %
Slices per slab	18
FoV read	170 mm
FoV phase	100.0 %
Slice thickness	0.45 mm
TR 1	55.3 ms
TR 2	5322 ms
Multi-slice mode	Interleaved
Series	Ascending
Multi-echo Shots	1

Geometry - AutoAlign

Slab group	1
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
AutoAlign	---
Initial Position	Isocenter
L	0.0 mm
P	0.0 mm
H	0.0 mm
Initial Rotation	0.00 deg
Initial Orientation	Transversal

Geometry - Saturation

Saturation mode	Standard
Fat suppr.	None

Geometry - Tim Planning Suite

Set-n-Go Protocol	Off
Table position	H
Table position	0 mm
Inline Composing	Off

System - Miscellaneous

Positioning mode	REF
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combine Mode	Sum of Squares
Save uncombined	Off
Matrix Optimization	Off
AutoAlign	---
Coil Select Mode	Default

System - Adjustments

B0 Shim mode	Standard
B1 Shim mode	TrueForm
Confirm freq. adjustment	Off
Assume Dominant Fat	Off
Assume Silicone	Off
Adjustment Tolerance	Auto

System - Adjust Volume

Position	Isocenter
Orientation	Transversal
Rotation	0.00 deg
A >> P	170 mm
R >> L	170 mm
F >> H	9 mm
Reset	Off

System - pTx Volumes

B1 Shim mode	TrueForm
Excitation	Slab-sel.

System - Tx/Rx

Frequency 1H	297.210683 MHz
Correction factor	1
Gain	High
Img. Scale Cor.	1.000
Reset	Off
! Ref. amplitude 1H	200.000 V

Sequence - Part 1

Introduction	On
Dimension	3D
Reordering	Linear
Asymmetric echo	Off
Contrasts	1
Multi-slice mode	Interleaved
Echo spacing	1.06 ms
Bandwidth	1028 Hz/Px

Sequence - Part 2

EPI factor	47
Segmentation	2
RF pulse type	Normal
Gradient mode	Fast
Excitation	Slab-sel.
RF spoiling	On
Turbo factor	18

Sequence - Special

PATRef FA	3 deg
RF duration	1400 us
RF BWT product	8
Ernst T1	1200 ms
PATRef prep. shots	10
Volume dummy shots	0
Dummy Measurements	0
Invert PE	Off
Min. TE if PF	On
Echo Time Shift	On
Ramp Sampling	On
NORDIC	On
Water Exc.	Long bino-11
External PC	per Series
EPI rise time factor	1.00
Mosaic DICOMs	On
Modify Ice Config	On
GRAPPA Regularization	50000 10^-6
HSN RF power scale	2.50
Inversion Delay	650 ms
Relaxation Delay	0 ms
Var. FA /MAGEC	4

Sequence - Assistant

Mode	Off

\\USER\Test\Joseph\20210920_VASOremote\rslh_ep3d_vaso_p45_Renzo_bino_20210927

TA: 0:33 PM: FIX Voxel size: 0.5×0.5×0.4 mmPAT: 3 Rel. SNR: 1.00 : d238999c

Properties

Prio recon	Off
Load images to viewer	On
Inline movie	Off
Auto store images	On
Load images to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Auto close inline display	Off
Start measurement without further preparation	Off
Wait for user to start	Off
Start measurements	Single measurement

Routine

Slab group	1
Slabs	1
Position	L0.0 P33.7 H21.0 mm
Orientation	C > T-44.3
Phase enc. dir.	R >> L
AutoAlign	---
Slab Scale	-10 %
Slices per slab	18
FoV read	170 mm
FoV phase	100.0 %
Slice thickness	0.45 mm
TR 1	55.3 ms
TR 2	5322 ms
TE 1	19.50 ms
Averages	1
Multi-echo Shots	1
Filter	Distortion Corr.(3D)
Coil elements	R96

Contrast - Common

TR 1	55.3 ms
TR 2	5322 ms
TE 1	19.50 ms
Multi-echo spacing	50.67 ms
Magn. preparation	Non-sel. HSN IR
TI 1	1157.7 ms
TI 2	2153.1 ms
Flip angle	40 deg
Fat suppr.	None
Magn. Prep. Shots	2

Contrast - Dynamic

Averages	1
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	5
Pause after meas. 1	0.0 s
Pause after meas. 2	0.0 s
Pause after meas. 3	0.0 s
Pause after meas. 4	0.0 s

Resolution - Common

FoV read	170 mm
FoV phase	100.0 %
Slice thickness	0.45 mm
Base resolution	374

Resolution - Common

Phase resolution	100 %
Slice resolution	100 %
Phase partial Fourier	6/8
Slice partial Fourier	Off
Interpolation	Off

Resolution - iPAT

PAT mode	CAIPIRINHA
Acc. factor PE	3
Ref. lines PE	75
Acc. factor 3D	1
Ref. lines 3D	16
CAIPI 3D Shift	0
Reference Scan Mode	GRE/separate
CAIPIRINHA mode	Free

Resolution - Filter Image

Image Filter	Off
Distortion Corr.	On
Mode	3D
Unfiltered images	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off

Resolution - Filter Rawdata

Raw filter	Off
Elliptical filter	Off

Geometry - Common

Slab group	1
Slabs	1
Position	L0.0 P33.7 H21.0 mm
Orientation	C > T-44.3
Phase enc. dir.	R >> L
Slab Scale	-10 %
Slices per slab	18
FoV read	170 mm
FoV phase	100.0 %
Slice thickness	0.45 mm
TR 1	55.3 ms
TR 2	5322 ms
Multi-slice mode	Interleaved
Series	Ascending
Multi-echo Shots	1

Geometry - AutoAlign

Slab group	1
Position	L0.0 P33.7 H21.0 mm
Orientation	C > T-44.3
Phase enc. dir.	R >> L
AutoAlign	---
Initial Position	L0.0 P33.7 H21.0
L	0.0 mm
P	33.7 mm
H	21.0 mm
Initial Rotation	0.00 deg
Initial Orientation	C > T
C > T	-44.3
> S	0.0

Geometry - Saturation

Saturation mode	Standard
Fat suppr.	None

Geometry - Tim Planning Suite

Set-n-Go Protocol	Off
Table position	H
Table position	0 mm
Inline Composing	Off

System - Miscellaneous

Positioning mode	FIX
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combine Mode	Sum of Squares
Save uncombined	Off
Matrix Optimization	Off
AutoAlign	---
Coil Select Mode	Default

System - Adjustments

B0 Shim mode	Standard
B1 Shim mode	TrueForm
Confirm freq. adjustment	Off
Assume Dominant Fat	Off
Assume Silicone	Off
Adjustment Tolerance	Auto

System - Adjust Volume

! Position	L0.0 P24.7 H11.4 mm
! Orientation	C > T-44.3
! Rotation	0.00 deg
! R >> L	170 mm
! F >> H	170 mm
! A >> P	47 mm
Reset	Off

System - pTx Volumes

B1 Shim mode	TrueForm
Excitation	Slab-sel.

System - Tx/Rx

Frequency 1H	297.210683 MHz
Correction factor	1
Gain	High
Img. Scale Cor.	1.000
Reset	Off
! Ref. amplitude 1H	200.000 V

Sequence - Part 1

Introduction	On
Dimension	3D
Reordering	Linear
Asymmetric echo	Off
Contrasts	1
Multi-slice mode	Interleaved
Echo spacing	1.06 ms
Bandwidth	1028 Hz/Px

Sequence - Part 2

EPI factor	47
Segmentation	2
RF pulse type	Normal
Gradient mode	Fast
Excitation	Slab-sel.
RF spoiling	On
Turbo factor	18

Sequence - Special

PATRef FA	3 deg
RF duration	1400 us
RF BWT product	15
Ernst T1	1200 ms
PATRef prep. shots	10
Volume dummy shots	0
Dummy Measurements	0
Invert PE	Off
Min. TE if PF	On
Echo Time Shift	On
Ramp Sampling	On
NORDIC	Off
Water Exc.	Long bino-11
External PC	per Series
EPI rise time factor	1.00
Mosaic DICOMs	On
Modify Ice Config	On
GRAPPA Regularization	50000 10^-6
HSN RF power scale	2.50
Inversion Delay	650 ms
Relaxation Delay	0 ms
Var. FA /MAGEC	4

Sequence - Assistant

Mode	Off

\\USER\Test\Joseph\20210920_VASOremote\localizer

TA: 0:27 PM: FIX Voxel size: 0.5×0.5×3.0 mmPAT: Off Rel. SNR: 1.00 : qfl

Properties

Prio recon	On
Load images to viewer	On
Inline movie	Off
Auto store images	On
Load images to stamp segments	On
Load images to graphic segments	On
Auto open inline display	Off
Auto close inline display	Off
Start measurement without further preparation	Off
Wait for user to start	Off
Start measurements	Single measurement

Routine

Slice group	1
Slices	5
Dist. factor	200 %
Position	Isocenter
Orientation	Sagittal
Phase enc. dir.	A >> P
Slice group	2
Slices	5
Dist. factor	200 %
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
Slice group	3
Slices	5
Dist. factor	200 %
Position	Isocenter
Orientation	Coronal
Phase enc. dir.	R >> L
AutoAlign	---
Phase oversampling	0 %
FoV read	280 mm
FoV phase	100.0 %
Slice thickness	3.0 mm
TR	10.0 ms
TE	3.00 ms
Averages	1
Concatenations	15
Filter	Elliptical filter
Coil elements	R96

Contrast - Common

TR	10.0 ms
TE	3.00 ms
TD	0 ms
MTC	Off
Magn. preparation	None
Flip angle	10 deg
Fat suppr.	None
Water suppr.	None
SWI	Off

Contrast - Dynamic

Averages	1
Averaging mode	Short term
Reconstruction	Magnitude
Measurements	1

Contrast - Dynamic

Multiple series	Each measurement

Resolution - Common

FoV read	280 mm
FoV phase	100.0 %
Slice thickness	3.0 mm
Base resolution	256
Phase resolution	90 %
Phase partial Fourier	6/8
Interpolation	On

Resolution - iPAT

PAT mode	None

Resolution - Filter Image

Image Filter	Off
Distortion Corr.	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off

Resolution - Filter Rawdata

Raw filter	Off
Elliptical filter	On

Geometry - Common

Slice group	1
Slices	5
Dist. factor	200 %
Position	Isocenter
Orientation	Sagittal
Phase enc. dir.	A >> P
Slice group	2
Slices	5
Dist. factor	200 %
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
Slice group	3
Slices	5
Dist. factor	200 %
Position	Isocenter
Orientation	Coronal
Phase enc. dir.	R >> L
FoV read	280 mm
FoV phase	100.0 %
Slice thickness	3.0 mm
TR	10.0 ms
Multi-slice mode	Sequential
Series	Interleaved
Concatenations	15

Geometry - AutoAlign

Slice group	1
Position	Isocenter
Orientation	Sagittal
Phase enc. dir.	A >> P
Slice group	2
Position	Isocenter
Orientation	Transversal

Geometry - AutoAlign

Phase enc. dir.	A >> P
Slice group	3
Position	Isocenter
Orientation	Coronal
Phase enc. dir.	R >> L
AutoAlign	---
Initial Position	Isocenter
L	0.0 mm
P	0.0 mm
H	0.0 mm
Initial Rotation	0.00 deg
Initial Orientation	Sagittal

Geometry - Saturation

Saturation mode	Standard
Fat suppr.	None
Water suppr.	None
Special sat.	None

Geometry - Tim Planning Suite

Set-n-Go Protocol	Off
Table position	H
Table position	0 mm
Inline Composing	Off

Geometry - Tim CT

Tim CT mode	Off
Slices	5
Slice thickness	3.0 mm
Dist. factor	200 %
FoV read	280 mm
FoV phase	100.0 %
Segments	1

System - Miscellaneous

Positioning mode	FIX
Table position	F
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combine Mode	Sum of Squares
Save uncombined	Off
Matrix Optimization	Off
AutoAlign	---
Coil Select Mode	Off - AutoCoilSelect

System - Adjustments

B0 Shim mode	Tune up
B1 Shim mode	TrueForm
Confirm freq. adjustment	Off
Assume Dominant Fat	Off
Assume Silicone	Off
Adjustment Tolerance	Auto

System - Adjust Volume

Position	Isocenter
Orientation	Transversal
Rotation	0.00 deg
A >> P	263 mm
R >> L	350 mm
F >> H	350 mm
Reset	Off

System - pTx Volumes

B1 Shim mode	TrueForm
Excitation	Slice-sel.

System - Tx/Rx

Frequency 1H	297.210683 MHz
Correction factor	1
Gain	High
Img. Scale Cor.	1.000
Reset	Off
? Ref. amplitude 1H	0.000 V

Physio - Signal1

1st Signal/Mode	None
TR	10.0 ms
Concatenations	15
Segments	1

Physio - Cardiac

Tagging	None
Magn. preparation	None
Fat suppr.	None
Dark blood	Off
FoV read	280 mm
FoV phase	100.0 %
Phase resolution	90 %

Physio - PACE

Resp. control	Off
Concatenations	15

Inline - Common

Subtract	Off
Measurements	1
StdDev	Off
Liver registration	Off
Save original images	On

Inline - MIP

MIP-Sag	Off
MIP-Cor	Off
MIP-Tra	Off
MIP-Time	Off
Save original images	On

Inline - Soft Tissue

Wash - In	Off
Wash - Out	Off
TTP	Off
PEI	Off
MIP - time	Off
Measurements	1

Inline - Composing

Inline Composing	Off
Distortion Corr.	Off

Inline - MapIt

Save original images	On
MapIt	None
Flip angle	10 deg
Measurements	1
Contrasts	1
TR	10.0 ms

Inline - MapIt

TE	3.00 ms

Sequence - Part 1

Introduction	On
Dimension	2D
Phase stabilisation	Off
Asymmetric echo	Allowed
Contrasts	1
Flow comp.	No
Multi-slice mode	Sequential
Bandwidth	320 Hz/Px

Sequence - Part 2

Segments	1
Acoustic noise reduction	Active
RF pulse type	Normal
Gradient mode	Normal
Excitation	Slice-sel.
RF spoiling	On

Sequence - Assistant

Mode	Off

\\USER\Test\Joseph\20210920_VASOremote\renzo_IR_localizer_visual

TA: 1:05 PM: REF Voxel size: 1.0×1.0×3.0 mmPAT: Off Rel. SNR: 1.00 : tfl

Properties

Prio recon	Off
Load images to viewer	On
Inline movie	Off
Auto store images	On
Load images to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Auto close inline display	Off
Start measurement without further preparation	Off
Wait for user to start	Off
Start measurements	Single measurement

Routine

Slice group	1
Slices	9
Dist. factor	20 %
Position	Isocenter
Orientation	Sagittal
Phase enc. dir.	A >> P
Slice group	2
Slices	5
Dist. factor	80 %
Position	L0.5 P14.2 H0.0 mm
Orientation	Transversal
Phase enc. dir.	A >> P
Slice group	3
Slices	7
Dist. factor	80 %
Position	L0.0 P11.5 F10.2 mm
Orientation	Sagittal
Phase enc. dir.	A >> P
AutoAlign	---
Phase oversampling	0 %
FoV read	200 mm
FoV phase	100.0 %
Slice thickness	3.0 mm
TR	3000.0 ms
TE	2.34 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	R96

Contrast - Common

TR	3000.0 ms
TE	2.34 ms
Magn. preparation	Slice-sel. IR
TI	1100 ms
Flip angle	6.0 deg
Fat suppr.	None
Water suppr.	None

Contrast - Dynamic

Averages	1
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	1
Multiple series	Each measurement

Resolution - Common

FoV read	200 mm
FoV phase	100.0 %
Slice thickness	3.0 mm
Base resolution	192
Phase resolution	100 %
Phase partial Fourier	Off
Interpolation	Off

Resolution - iPAT

PAT mode	None

Resolution - Filter Image

Image Filter	Off
Distortion Corr.	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off

Resolution - Filter Rawdata

Raw filter	Off
Elliptical filter	Off

Geometry - Common

Slice group	1
Slices	9
Dist. factor	20 %
Position	Isocenter
Orientation	Sagittal
Phase enc. dir.	A >> P
Slice group	2
Slices	5
Dist. factor	80 %
Position	L0.5 P14.2 H0.0 mm
Orientation	Transversal
Phase enc. dir.	A >> P
Slice group	3
Slices	7
Dist. factor	80 %
Position	L0.0 P11.5 F10.2 mm
Orientation	Sagittal
Phase enc. dir.	A >> P
FoV read	200 mm
FoV phase	100.0 %
Slice thickness	3.0 mm
TR	3000.0 ms
Multi-slice mode	Single shot
Series	Interleaved
Concatenations	1

Geometry - AutoAlign

Slice group	1
Position	Isocenter
Orientation	Sagittal
Phase enc. dir.	A >> P
Slice group	2
Position	L0.5 P14.2 H0.0 mm
Orientation	Transversal
Phase enc. dir.	A >> P
Slice group	3
Position	L0.0 P11.5 F10.2 mm

Geometry - AutoAlign

Orientation	Sagittal
Phase enc. dir.	A >> P
AutoAlign	---
Initial Position	Isocenter
L	0.0 mm
P	0.0 mm
H	0.0 mm
Initial Rotation	0.00 deg
Initial Orientation	Sagittal

Geometry - Navigator

Geometry - Tim Planning Suite

Set-n-Go Protocol	Off
Table position	H
Table position	0 mm
Inline Composing	Off

System - Miscellaneous

Positioning mode	REF
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combine Mode	Sum of Squares
Save uncombined	Off
Matrix Optimization	Off
AutoAlign	---
Coil Select Mode	Default

System - Adjustments

B0 Shim mode	Tune up
B1 Shim mode	TrueForm
Confirm freq. adjustment	Off
Assume Dominant Fat	Off
Assume Silicone	Off
Adjustment Tolerance	Auto

System - Adjust Volume

Position	Isocenter
Orientation	Transversal
Rotation	0.00 deg
A >> P	263 mm
R >> L	350 mm
F >> H	350 mm
Reset	Off

System - pTx Volumes

B1 Shim mode	TrueForm
Excitation	Slice-sel.

System - Tx/Rx

Frequency 1H	297.210683 MHz
Correction factor	1
Gain	High
Img. Scale Cor.	1.000
Reset	Off
? Ref. amplitude 1H	0.000 V

Physio - Signal1

1st Signal/Mode	None

Physio - Signal1

TR	3000.0 ms
Concatenations	1

Physio - Cardiac

Magn. preparation	Slice-sel. IR
TI	1100 ms
Fat suppr.	None
Dark blood	Off
FoV read	200 mm
FoV phase	100.0 %
Phase resolution	100 %

Physio - PACE

Resp. control	Off
Concatenations	1

Inline - Common

Subtract	Off
Measurements	1
StdDev	Off
Save original images	On

Inline - MIP

MIP-Sag	Off
MIP-Cor	Off
MIP-Tra	Off
MIP-Time	Off
Save original images	On

Inline - Composing

Inline Composing	Off
Distortion Corr.	Off

Inline - MapIt

Save original images	On
MapIt	None
Flip angle	6.0 deg
Measurements	1
TR	3000.0 ms
TE	2.34 ms

Sequence - Part 1

Introduction	On
Dimension	2D
Asymmetric echo	Allowed
Flow comp.	No
Multi-slice mode	Single shot
Echo spacing	6.2 ms
Bandwidth	240 Hz/Px

Sequence - Part 2

RF pulse type	Normal
Gradient mode	Normal
Excitation	Slice-sel.
RF spoiling	On
Incr. Gradient spoiling	Off
Turbo factor	192

Sequence - Assistant

Mode	Off

\\USER\Test\Joseph\20210920_VASOremote\rslh_ep3d_vaso_p45_ESp83

TA: 0:36 PM: REF Voxel size: 0.5×0.5×0.4 mmPAT: 3 Rel. SNR: 1.00 : d238999c

Properties

Prio recon	Off
Load images to viewer	On
Inline movie	Off
Auto store images	On
Load images to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Auto close inline display	Off
Start measurement without further preparation	Off
Wait for user to start	Off
Start measurements	Single measurement

Routine

Slab group	1
Slabs	1
Position	L0.0 P17.6 F1.4 mm
Orientation	Transversal
Phase enc. dir.	A >> P
AutoAlign	---
Slab Scale	-10 %
Slices per slab	18
FoV read	170 mm
FoV phase	100.0 %
Slice thickness	0.45 mm
TR 1	38.6 ms
TR 2	7162 ms
TE 1	13.50 ms
Averages	1
Multi-echo Shots	1
Filter	Distortion Corr.(3D)
Coil elements	R96

Contrast - Common

TR 1	38.6 ms
TR 2	7162 ms
TE 1	13.50 ms
Multi-echo spacing	34.56 ms
Magn. preparation	Non-sel. HSN IR
TI 1	1007.4 ms
TI 2	1702.2 ms
Flip angle	40 deg
Fat suppr.	Fat sat.
Magn. Prep. Shots	3

Contrast - Dynamic

Averages	1
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	4
Pause after meas. 1	0.0 s
Pause after meas. 2	0.0 s
Pause after meas. 3	0.0 s

Resolution - Common

FoV read	170 mm
FoV phase	100.0 %
Slice thickness	0.45 mm
Base resolution	374
Phase resolution	100 %

Resolution - Common

Slice resolution	100 %
Phase partial Fourier	6/8
Slice partial Fourier	Off
Interpolation	Off

Resolution - iPAT

PAT mode	CAIPIRINHA
Acc. factor PE	3
Ref. lines PE	75
Acc. factor 3D	1
Ref. lines 3D	16
CAIPI 3D Shift	0
Reference Scan Mode	GRE/separate
CAIPIRINHA mode	Free

Resolution - Filter Image

Image Filter	Off
Distortion Corr.	On
Mode	3D
Unfiltered images	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off

Resolution - Filter Rawdata

Raw filter	Off
Elliptical filter	Off

Geometry - Common

Slab group	1
Slabs	1
Position	L0.0 P17.6 F1.4 mm
Orientation	Transversal
Phase enc. dir.	A >> P
Slab Scale	-10 %
Slices per slab	18
FoV read	170 mm
FoV phase	100.0 %
Slice thickness	0.45 mm
TR 1	38.6 ms
TR 2	7162 ms
Multi-slice mode	Interleaved
Series	Ascending
Multi-echo Shots	1

Geometry - AutoAlign

Slab group	1
Position	L0.0 P17.6 F1.4 mm
Orientation	Transversal
Phase enc. dir.	A >> P
AutoAlign	---
Initial Position	L0.0 P17.6 F1.4
L	0.0 mm
P	17.6 mm
F	1.4 mm
Initial Rotation	0.00 deg
Initial Orientation	Transversal

Geometry - Saturation

Saturation mode	Standard

Geometry - Saturation

Fat suppr.	Fat sat.

Geometry - Tim Planning Suite

Set-n-Go Protocol	Off
Table position	H
Table position	0 mm
Inline Composing	Off

System - Miscellaneous

Positioning mode	REF
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combine Mode	Sum of Squares
Save uncombined	Off
Matrix Optimization	Off
AutoAlign	---
Coil Select Mode	Default

System - Adjustments

B0 Shim mode	Standard
B1 Shim mode	TrueForm
Confirm freq. adjustment	Off
Assume Dominant Fat	Off
Assume Silicone	Off
Adjustment Tolerance	Auto

System - Adjust Volume

! Position	L0.0 P12.5 H6.0 mm
! Orientation	T > C0.8
! Rotation	90.00 deg
! R >> L	170 mm
! A >> P	170 mm
! F >> H	47 mm
Reset	Off

System - pTx Volumes

B1 Shim mode	TrueForm
Excitation	Slab-sel.

System - Tx/Rx

Frequency 1H	297.210683 MHz
Correction factor	1
Gain	High
Img. Scale Cor.	0.600
Reset	Off
? Ref. amplitude 1H	0.000 V

Sequence - Part 1

Introduction	On
Dimension	3D
Reordering	Linear
Asymmetric echo	Off
Contrasts	1
Multi-slice mode	Interleaved
Echo spacing	1.06 ms
Bandwidth	1028 Hz/Px

Sequence - Part 2

EPI factor	32

Sequence - Part 2

Segmentation	3
RF pulse type	Normal
Gradient mode	Fast
Excitation	Slab-sel.
RF spoiling	On
Turbo factor	18

Sequence - Special

PATRef FA	3 deg
RF duration	2000 us
RF BWT product	15
Ernst T1	1200 ms
PATRef prep. shots	10
Volume dummy shots	0
Dummy Measurements	0
Invert PE	Off
Min. TE if PF	On
Echo Time Shift	On
Ramp Sampling	On
NORDIC	On
Water Exc.	-none-
External PC	per Series
Saturation RF	per Shot
EPI rise time factor	1.00
Mosaic DICOMs	On
Modify Ice Config	On
GRAPPA Regularization	50000 10^-6
HSN RF power scale	2.50
Inversion Delay	650 ms
Relaxation Delay	0 ms
Var. FA /MAGEC	4

Sequence - Assistant

Mode	Off

\\USER\Test\Joseph\20210920_VASOremote\rslh_ep3d_vaso_p45__ES1.06_seg3

TA: 0:36 PM: REF Voxel size: 0.5×0.5×0.4 mmPAT: 3 Rel. SNR: 1.00 : d238999c

Properties

Prio recon	Off
Load images to viewer	On
Inline movie	Off
Auto store images	On
Load images to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Auto close inline display	Off
Start measurement without further preparation	Off
Wait for user to start	Off
Start measurements	Single measurement

Routine

Slab group	1
Slabs	1
Position	L0.0 P17.6 F1.4 mm
Orientation	Transversal
Phase enc. dir.	A >> P
AutoAlign	---
Slab Scale	-10 %
Slices per slab	18
FoV read	170 mm
FoV phase	100.0 %
Slice thickness	0.45 mm
TR 1	38.6 ms
TR 2	7162 ms
TE 1	13.50 ms
Averages	1
Multi-echo Shots	1
Filter	Distortion Corr.(3D)
Coil elements	R96

Contrast - Common

TR 1	38.6 ms
TR 2	7162 ms
TE 1	13.50 ms
Multi-echo spacing	34.56 ms
Magn. preparation	Non-sel. HSN IR
TI 1	1007.4 ms
TI 2	1702.2 ms
Flip angle	40 deg
Fat suppr.	Fat sat.
Magn. Prep. Shots	3

Contrast - Dynamic

Averages	1
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	4
Pause after meas. 1	0.0 s
Pause after meas. 2	0.0 s
Pause after meas. 3	0.0 s

Resolution - Common

FoV read	170 mm
FoV phase	100.0 %
Slice thickness	0.45 mm
Base resolution	374
Phase resolution	100 %

Resolution - Common

Slice resolution	100 %
Phase partial Fourier	6/8
Slice partial Fourier	Off
Interpolation	Off

Resolution - iPAT

PAT mode	CAIPIRINHA
Acc. factor PE	3
Ref. lines PE	75
Acc. factor 3D	1
Ref. lines 3D	16
CAIPI 3D Shift	0
Reference Scan Mode	GRE/separate
CAIPIRINHA mode	Free

Resolution - Filter Image

Image Filter	Off
Distortion Corr.	On
Mode	3D
Unfiltered images	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off

Resolution - Filter Rawdata

Raw filter	Off
Elliptical filter	Off

Geometry - Common

Slab group	1
Slabs	1
Position	L0.0 P17.6 F1.4 mm
Orientation	Transversal
Phase enc. dir.	A >> P
Slab Scale	-10 %
Slices per slab	18
FoV read	170 mm
FoV phase	100.0 %
Slice thickness	0.45 mm
TR 1	38.6 ms
TR 2	7162 ms
Multi-slice mode	Interleaved
Series	Ascending
Multi-echo Shots	1

Geometry - AutoAlign

Slab group	1
Position	L0.0 P17.6 F1.4 mm
Orientation	Transversal
Phase enc. dir.	A >> P
AutoAlign	---
Initial Position	L0.0 P17.6 F1.4
L	0.0 mm
P	17.6 mm
F	1.4 mm
Initial Rotation	0.00 deg
Initial Orientation	Transversal

Geometry - Saturation

Saturation mode	Standard

Geometry - Saturation

Fat suppr.	Fat sat.

Geometry - Tim Planning Suite

Set-n-Go Protocol	Off
Table position	H
Table position	0 mm
Inline Composing	Off

System - Miscellaneous

Positioning mode	REF
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combine Mode	Sum of Squares
Save uncombined	Off
Matrix Optimization	Off
AutoAlign	---
Coil Select Mode	Default

System - Adjustments

B0 Shim mode	Standard
B1 Shim mode	TrueForm
Confirm freq. adjustment	Off
Assume Dominant Fat	Off
Assume Silicone	Off
Adjustment Tolerance	Auto

System - Adjust Volume

! Position	L0.0 P12.5 H6.0 mm
! Orientation	T > C0.8
! Rotation	90.00 deg
! R >> L	170 mm
! A >> P	170 mm
! F >> H	47 mm
Reset	Off

System - pTx Volumes

B1 Shim mode	TrueForm
Excitation	Slab-sel.

System - Tx/Rx

Frequency 1H	297.210683 MHz
Correction factor	1
Gain	High
Img. Scale Cor.	0.600
Reset	Off
! Ref. amplitude 1H	200.000 V

Sequence - Part 1

Introduction	On
Dimension	3D
Reordering	Linear
Asymmetric echo	Off
Contrasts	1
Multi-slice mode	Interleaved
Echo spacing	1.06 ms
Bandwidth	1028 Hz/Px

Sequence - Part 2

EPI factor	32

Sequence - Part 2

Segmentation	3
RF pulse type	Normal
Gradient mode	Fast
Excitation	Slab-sel.
RF spoiling	On
Turbo factor	18

Sequence - Special

PATRef FA	3 deg
RF duration	2000 us
RF BWT product	15
Ernst T1	1200 ms
PATRef prep. shots	10
Volume dummy shots	0
Dummy Measurements	0
Invert PE	Off
Min. TE if PF	On
Echo Time Shift	On
Ramp Sampling	On
NORDIC	On
Water Exc.	-none-
External PC	per Series
Saturation RF	per Shot
EPI rise time factor	1.00
Mosaic DICOMs	On
Modify Ice Config	On
GRAPPA Regularization	50000 10^-6
HSN RF power scale	2.50
Inversion Delay	650 ms
Relaxation Delay	0 ms
Var. FA /MAGEC	4

Sequence - Assistant

Mode	Off

\\USER\Test\Joseph\20210920_VASOremote\20211004_executed

TA: 0:27 PM: FIX Voxel size: 0.5×0.5×3.0 mmPAT: Off Rel. SNR: 1.00 : qfl

Properties

Prio recon	On
Load images to viewer	On
Inline movie	Off
Auto store images	On
Load images to stamp segments	On
Load images to graphic segments	On
Auto open inline display	Off
Auto close inline display	Off
Start measurement without further preparation	Off
Wait for user to start	Off
Start measurements	Single measurement

Routine

Slice group	1
Slices	5
Dist. factor	200 %
Position	Isocenter
Orientation	Sagittal
Phase enc. dir.	A >> P
Slice group	2
Slices	5
Dist. factor	200 %
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
Slice group	3
Slices	5
Dist. factor	200 %
Position	Isocenter
Orientation	Coronal
Phase enc. dir.	R >> L
AutoAlign	---
Phase oversampling	0 %
FoV read	280 mm
FoV phase	100.0 %
Slice thickness	3.0 mm
TR	10.0 ms
TE	3.00 ms
Averages	1
Concatenations	15
Filter	Elliptical filter
Coil elements	R96

Contrast - Common

TR	10.0 ms
TE	3.00 ms
TD	0 ms
MTC	Off
Magn. preparation	None
Flip angle	10 deg
Fat suppr.	None
Water suppr.	None
SWI	Off

Contrast - Dynamic

Averages	1
Averaging mode	Short term
Reconstruction	Magnitude
Measurements	1

Contrast - Dynamic

Multiple series	Each measurement

Resolution - Common

FoV read	280 mm
FoV phase	100.0 %
Slice thickness	3.0 mm
Base resolution	256
Phase resolution	90 %
Phase partial Fourier	6/8
Interpolation	On

Resolution - iPAT

PAT mode	None

Resolution - Filter Image

Image Filter	Off
Distortion Corr.	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off

Resolution - Filter Rawdata

Raw filter	Off
Elliptical filter	On

Geometry - Common

Slice group	1
Slices	5
Dist. factor	200 %
Position	Isocenter
Orientation	Sagittal
Phase enc. dir.	A >> P
Slice group	2
Slices	5
Dist. factor	200 %
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
Slice group	3
Slices	5
Dist. factor	200 %
Position	Isocenter
Orientation	Coronal
Phase enc. dir.	R >> L
FoV read	280 mm
FoV phase	100.0 %
Slice thickness	3.0 mm
TR	10.0 ms
Multi-slice mode	Sequential
Series	Interleaved
Concatenations	15

Geometry - AutoAlign

Slice group	1
Position	Isocenter
Orientation	Sagittal
Phase enc. dir.	A >> P
Slice group	2
Position	Isocenter
Orientation	Transversal

Geometry - AutoAlign

Phase enc. dir.	A >> P
Slice group	3
Position	Isocenter
Orientation	Coronal
Phase enc. dir.	R >> L
AutoAlign	---
Initial Position	Isocenter
L	0.0 mm
P	0.0 mm
H	0.0 mm
Initial Rotation	0.00 deg
Initial Orientation	Sagittal

Geometry - Saturation

Saturation mode	Standard
Fat suppr.	None
Water suppr.	None
Special sat.	None

Geometry - Tim Planning Suite

Set-n-Go Protocol	Off
Table position	H
Table position	0 mm
Inline Composing	Off

Geometry - Tim CT

Tim CT mode	Off
Slices	5
Slice thickness	3.0 mm
Dist. factor	200 %
FoV read	280 mm
FoV phase	100.0 %
Segments	1

System - Miscellaneous

Positioning mode	FIX
Table position	F
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combine Mode	Sum of Squares
Save uncombined	Off
Matrix Optimization	Off
AutoAlign	---
Coil Select Mode	Off - AutoCoilSelect

System - Adjustments

B0 Shim mode	Tune up
B1 Shim mode	TrueForm
Confirm freq. adjustment	Off
Assume Dominant Fat	Off
Assume Silicone	Off
Adjustment Tolerance	Auto

System - Adjust Volume

Position	Isocenter
Orientation	Transversal
Rotation	0.00 deg
A >> P	263 mm
R >> L	350 mm
F >> H	350 mm
Reset	Off

System - pTx Volumes

B1 Shim mode	TrueForm
Excitation	Slice-sel.

System - Tx/Rx

Frequency 1H	297.210683 MHz
Correction factor	1
Gain	High
Img. Scale Cor.	1.000
Reset	Off
? Ref. amplitude 1H	0.000 V

Physio - Signal1

1st Signal/Mode	None
TR	10.0 ms
Concatenations	15
Segments	1

Physio - Cardiac

Tagging	None
Magn. preparation	None
Fat suppr.	None
Dark blood	Off
FoV read	280 mm
FoV phase	100.0 %
Phase resolution	90 %

Physio - PACE

Resp. control	Off
Concatenations	15

Inline - Common

Subtract	Off
Measurements	1
StdDev	Off
Liver registration	Off
Save original images	On

Inline - MIP

MIP-Sag	Off
MIP-Cor	Off
MIP-Tra	Off
MIP-Time	Off
Save original images	On

Inline - Soft Tissue

Wash - In	Off
Wash - Out	Off
TTP	Off
PEI	Off
MIP - time	Off
Measurements	1

Inline - Composing

Inline Composing	Off
Distortion Corr.	Off

Inline - MapIt

Save original images	On
MapIt	None
Flip angle	10 deg
Measurements	1
Contrasts	1
TR	10.0 ms

Inline - MapIt

TE	3.00 ms

Sequence - Part 1

Introduction	On
Dimension	2D
Phase stabilisation	Off
Asymmetric echo	Allowed
Contrasts	1
Flow comp.	No
Multi-slice mode	Sequential
Bandwidth	320 Hz/Px

Sequence - Part 2

Segments	1
Acoustic noise reduction	Active
RF pulse type	Normal
Gradient mode	Normal
Excitation	Slice-sel.
RF spoiling	On

Sequence - Assistant

Mode	Off

\\USER\Test\Joseph\20210920_VASOremote\rslh_ep3d_vaso_p45_ESp083_AP_BAD

TA: 0:41 PM: REF Voxel size: 0.5×0.5×0.4 mmPAT: 3 Rel. SNR: 1.00 : d238999c

Properties

Prio recon	Off
Load images to viewer	On
Inline movie	Off
Auto store images	On
Load images to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Auto close inline display	Off
Start measurement without further preparation	Off
Wait for user to start	Off
Start measurements	Single measurement

Routine

Slab group	1
Slabs	1
Position	L0.0 P46.1 H16.9 mm
Orientation	C > T-36.7
Phase enc. dir.	F >> H
AutoAlign	---
Slab Scale	-10 %
Slices per slab	18
FoV read	170 mm
FoV phase	100.0 %
Slice thickness	0.45 mm
TR 1	49.9 ms
TR 2	5588 ms
TE 1	15.30 ms
Averages	1
Multi-echo Shots	1
Filter	Distortion Corr.(3D)
Coil elements	R96

Contrast - Common

TR 1	49.9 ms
TR 2	5588 ms
TE 1	15.30 ms
Multi-echo spacing	39.85 ms
Magn. preparation	Non-sel. HSN IR
TI 1	1109.1 ms
TI 2	2007.3 ms
Flip angle	40 deg
Fat suppr.	Fat sat.
Magn. Prep. Shots	2

Contrast - Dynamic

Averages	1
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	6
Pause after meas. 1	0.0 s
Pause after meas. 2	0.0 s
Pause after meas. 3	0.0 s
Pause after meas. 4	0.0 s
Pause after meas. 5	0.0 s

Resolution - Common

FoV read	170 mm
FoV phase	100.0 %
Slice thickness	0.45 mm

Resolution - Common

Base resolution	374
Phase resolution	100 %
Slice resolution	100 %
Phase partial Fourier	6/8
Slice partial Fourier	Off
Interpolation	Off

Resolution - iPAT

PAT mode	CAIPIRINHA
Acc. factor PE	3
Ref. lines PE	75
Acc. factor 3D	1
Ref. lines 3D	16
CAIPI 3D Shift	0
Reference Scan Mode	GRE/separate
CAIPIRINHA mode	Free

Resolution - Filter Image

Image Filter	Off
Distortion Corr.	On
Mode	3D
Unfiltered images	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off

Resolution - Filter Rawdata

Raw filter	Off
Elliptical filter	Off

Geometry - Common

Slab group	1
Slabs	1
Position	L0.0 P46.1 H16.9 mm
Orientation	C > T-36.7
Phase enc. dir.	F >> H
Slab Scale	-10 %
Slices per slab	18
FoV read	170 mm
FoV phase	100.0 %
Slice thickness	0.45 mm
TR 1	49.9 ms
TR 2	5588 ms
Multi-slice mode	Interleaved
Series	Ascending
Multi-echo Shots	1

Geometry - AutoAlign

Slab group	1
Position	L0.0 P46.1 H16.9 mm
Orientation	C > T-36.7
Phase enc. dir.	F >> H
AutoAlign	---
Initial Position	L0.0 P46.1 H16.9
L	0.0 mm
P	46.1 mm
H	16.9 mm
Initial Rotation	90.00 deg
Initial Orientation	C > T
C > T	-36.7

Geometry - AutoAlign

> S	0.0

Geometry - Saturation

Saturation mode	Standard
Fat suppr.	Fat sat.

Geometry - Tim Planning Suite

Set-n-Go Protocol	Off
Table position	H
Table position	0 mm
Inline Composing	Off

System - Miscellaneous

Positioning mode	REF
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combine Mode	Sum of Squares
Save uncombined	Off
Matrix Optimization	Off
AutoAlign	---
Coil Select Mode	Default

System - Adjustments

B0 Shim mode	Standard
B1 Shim mode	TrueForm
Confirm freq. adjustment	Off
Assume Dominant Fat	Off
Assume Silicone	Off
Adjustment Tolerance	Auto

System - Adjust Volume

! Position	L0.0 P38.2 H14.8 mm
! Orientation	C > T-36.9
! Rotation	0.00 deg
! R >> L	170 mm
! F >> H	170 mm
! A >> P	47 mm
Reset	Off

System - pTx Volumes

B1 Shim mode	TrueForm
Excitation	Slab-sel.

System - Tx/Rx

Frequency 1H	297.210683 MHz
Correction factor	1
Gain	High
Img. Scale Cor.	0.600
Reset	Off
? Ref. amplitude 1H	0.000 V

Sequence - Part 1

Introduction	On
Dimension	3D
Reordering	Linear
Asymmetric echo	Off
Contrasts	1
Multi-slice mode	Interleaved
Echo spacing	0.83 ms

Sequence - Part 1

Bandwidth	1336 Hz/Px

Sequence - Part 2

EPI factor	47
Segmentation	2
RF pulse type	Normal
Gradient mode	Fast
Excitation	Slab-sel.
RF spoiling	On
Turbo factor	18

Sequence - Special

PATRef FA	3 deg
RF duration	2000 us
RF BWT product	15
Ernst T1	1200 ms
PATRef prep. shots	10
Volume dummy shots	0
Dummy Measurements	0
Invert PE	Off
Min. TE if PF	On
Echo Time Shift	On
Ramp Sampling	On
NORDIC	On
Water Exc.	-none-
External PC	per Series
Saturation RF	per Shot
EPI rise time factor	1.00
Mosaic DICOMs	On
Modify Ice Config	On
GRAPPA Regularization	50000 10^-6
HSN RF power scale	2.50
Inversion Delay	650 ms
Relaxation Delay	0 ms
Var. FA /MAGEC	4

Sequence - Assistant

Mode	Off

\\USER\Test\Joseph\20210920_VASOremote\rsIh_ep3d_vaso_p45_ESp083_LR_GOOD

TA: 0:38 PM: REF Voxel size: 0.5×0.5×0.4 mmPAT: 3 Rel. SNR: 1.00 : d238999c

Properties

Prio recon	Off
Load images to viewer	On
Inline movie	Off
Auto store images	On
Load images to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Auto close inline display	Off
Start measurement without further preparation	Off
Wait for user to start	Off
Start measurements	Single measurement

Routine

Slab group	1
Slabs	1
Position	L0.0 P46.1 H16.9 mm
Orientation	C > T-36.7
Phase enc. dir.	R >> L
AutoAlign	---
Slab Scale	-10 %
Slices per slab	18
FoV read	170 mm
FoV phase	100.0 %
Slice thickness	0.45 mm
TR 1	43.4 ms
TR 2	5120 ms
TE 1	15.30 ms
Averages	1
Multi-echo Shots	1
Filter	Distortion Corr.(3D)
Coil elements	R96

Contrast - Common

TR 1	43.4 ms
TR 2	5120 ms
TE 1	15.30 ms
Multi-echo spacing	39.85 ms
Magn. preparation	Non-sel. HSN IR
TI 1	1050.6 ms
TI 2	1831.8 ms
Flip angle	40 deg
Fat suppr.	Fat sat.
Magn. Prep. Shots	2

Contrast - Dynamic

Averages	1
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	6
Pause after meas. 1	0.0 s
Pause after meas. 2	0.0 s
Pause after meas. 3	0.0 s
Pause after meas. 4	0.0 s
Pause after meas. 5	0.0 s

Resolution - Common

FoV read	170 mm
FoV phase	100.0 %
Slice thickness	0.45 mm

Resolution - Common

Base resolution	374
Phase resolution	100 %
Slice resolution	100 %
Phase partial Fourier	6/8
Slice partial Fourier	Off
Interpolation	Off

Resolution - iPAT

PAT mode	CAIPIRINHA
Acc. factor PE	3
Ref. lines PE	75
Acc. factor 3D	1
Ref. lines 3D	16
CAIPI 3D Shift	0
Reference Scan Mode	GRE/separate
CAIPIRINHA mode	Free

Resolution - Filter Image

Image Filter	Off
Distortion Corr.	On
Mode	3D
Unfiltered images	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off

Resolution - Filter Rawdata

Raw filter	Off
Elliptical filter	Off

Geometry - Common

Slab group	1
Slabs	1
Position	L0.0 P46.1 H16.9 mm
Orientation	C > T-36.7
Phase enc. dir.	R >> L
Slab Scale	-10 %
Slices per slab	18
FoV read	170 mm
FoV phase	100.0 %
Slice thickness	0.45 mm
TR 1	43.4 ms
TR 2	5120 ms
Multi-slice mode	Interleaved
Series	Ascending
Multi-echo Shots	1

Geometry - AutoAlign

Slab group	1
Position	L0.0 P46.1 H16.9 mm
Orientation	C > T-36.7
Phase enc. dir.	R >> L
AutoAlign	---
Initial Position	L0.0 P46.1 H16.9
L	0.0 mm
P	46.1 mm
H	16.9 mm
Initial Rotation	0.00 deg
Initial Orientation	C > T
C > T	-36.7

Geometry - AutoAlign

> S	0.0

Geometry - Saturation

Saturation mode	Standard
Fat suppr.	Fat sat.

Geometry - Tim Planning Suite

Set-n-Go Protocol	Off
Table position	H
Table position	0 mm
Inline Composing	Off

System - Miscellaneous

Positioning mode	REF
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combine Mode	Sum of Squares
Save uncombined	Off
Matrix Optimization	Off
AutoAlign	---
Coil Select Mode	Default

System - Adjustments

B0 Shim mode	Standard
B1 Shim mode	TrueForm
Confirm freq. adjustment	Off
Assume Dominant Fat	Off
Assume Silicone	Off
Adjustment Tolerance	Auto

System - Adjust Volume

! Position	L0.0 P38.2 H14.8 mm
! Orientation	C > T-36.9
! Rotation	0.00 deg
! R >> L	170 mm
! F >> H	170 mm
! A >> P	47 mm
Reset	Off

System - pTx Volumes

B1 Shim mode	TrueForm
Excitation	Slab-sel.

System - Tx/Rx

Frequency 1H	297.210683 MHz
Correction factor	1
Gain	High
Img. Scale Cor.	0.600
Reset	Off
! Ref. amplitude 1H	300.000 V

Sequence - Part 1

Introduction	On
Dimension	3D
Reordering	Linear
Asymmetric echo	Off
Contrasts	1
Multi-slice mode	Interleaved
Echo spacing	0.83 ms

Sequence - Part 1

Bandwidth	1336 Hz/Px

Sequence - Part 2

EPI factor	47
Segmentation	2
RF pulse type	Normal
Gradient mode	Fast
Excitation	Slab-sel.
RF spoiling	On
Turbo factor	18

Sequence - Special

PATRef FA	3 deg
RF duration	2000 us
RF BWT product	15
Ernst T1	1200 ms
PATRef prep. shots	10
Volume dummy shots	0
Dummy Measurements	0
Invert PE	Off
Min. TE if PF	On
Echo Time Shift	On
Ramp Sampling	On
NORDIC	Off
Water Exc.	-none-
External PC	per Series
Saturation RF	per Shot
EPI rise time factor	1.00
Mosaic DICOMs	Off
Modify Ice Config	Off
HSN RF power scale	2.50
Inversion Delay	650 ms
Relaxation Delay	0 ms
Var. FA /MAGEC	4

Sequence - Assistant

Mode	Off

\\USER\Test\Joseph\20210920_VASOremote\rslh_ep3d_vaso_p45__ES1.06_seg3

TA: 12:04 PM: FIX Voxel size: 0.5×0.5×0.4 mmPAT: 3 Rel. SNR: 1.00 : d238999c

Properties

Prio recon	Off
Load images to viewer	On
Inline movie	Off
Auto store images	On
Load images to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Auto close inline display	Off
Start measurement without further preparation	Off
Wait for user to start	Off
Start measurements	Single measurement

Routine

Slab group	1
Slabs	1
Position	L0.0 P46.1 H16.9 mm
Orientation	C > T-36.7
Phase enc. dir.	R >> L
AutoAlign	---
Slab Scale	-10 %
Slices per slab	18
FoV read	170 mm
FoV phase	100.0 %
Slice thickness	0.45 mm
TR 1	38.6 ms
TR 2	7162 ms
TE 1	13.50 ms
Averages	1
Multi-echo Shots	1
Filter	Distortion Corr.(3D)
Coil elements	R96

Contrast - Common

TR 1	38.6 ms
TR 2	7162 ms
TE 1	13.50 ms
Multi-echo spacing	34.56 ms
Magn. preparation	Non-sel. HSN IR
TI 1	1007.4 ms
TI 2	1702.2 ms
Flip angle	40 deg
Fat suppr.	Fat sat.
Magn. Prep. Shots	3

Contrast - Dynamic

Averages	1
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	100
Pause after meas.	0.0 s

Resolution - Common

FoV read	170 mm
FoV phase	100.0 %
Slice thickness	0.45 mm
Base resolution	374
Phase resolution	100 %
Slice resolution	100 %
Phase partial Fourier	6/8

Resolution - Common

Slice partial Fourier	Off
Interpolation	Off

Resolution - iPAT

PAT mode	CAIPIRINHA
Acc. factor PE	3
Ref. lines PE	75
Acc. factor 3D	1
Ref. lines 3D	16
CAIPI 3D Shift	0
Reference Scan Mode	GRE/separate
CAIPIRINHA mode	Free

Resolution - Filter Image

Image Filter	Off
Distortion Corr.	On
Mode	3D
Unfiltered images	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off

Resolution - Filter Rawdata

Raw filter	Off
Elliptical filter	Off

Geometry - Common

Slab group	1
Slabs	1
Position	L0.0 P46.1 H16.9 mm
Orientation	C > T-36.7
Phase enc. dir.	R >> L
Slab Scale	-10 %
Slices per slab	18
FoV read	170 mm
FoV phase	100.0 %
Slice thickness	0.45 mm
TR 1	38.6 ms
TR 2	7162 ms
Multi-slice mode	Interleaved
Series	Ascending
Multi-echo Shots	1

Geometry - AutoAlign

Slab group	1
Position	L0.0 P46.1 H16.9 mm
Orientation	C > T-36.7
Phase enc. dir.	R >> L
AutoAlign	---
Initial Position	L0.0 P46.1 H16.9
L	0.0 mm
P	46.1 mm
H	16.9 mm
Initial Rotation	0.00 deg
Initial Orientation	C > T
C > T	-36.7
> S	0.0

Geometry - Saturation

Saturation mode	Standard

Geometry - Saturation

Fat suppr.	Fat sat.

Geometry - Tim Planning Suite

Set-n-Go Protocol	Off
Table position	H
Table position	0 mm
Inline Composing	Off

System - Miscellaneous

Positioning mode	FIX
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combine Mode	Sum of Squares
Save uncombined	Off
Matrix Optimization	Off
AutoAlign	---
Coil Select Mode	Default

System - Adjustments

B0 Shim mode	Standard
B1 Shim mode	TrueForm
Confirm freq. adjustment	Off
Assume Dominant Fat	Off
Assume Silicone	Off
Adjustment Tolerance	Auto

System - Adjust Volume

! Position	L0.0 P38.2 H14.8 mm
! Orientation	C > T-36.9
! Rotation	0.00 deg
! R >> L	170 mm
! F >> H	170 mm
! A >> P	47 mm
Reset	Off

System - pTx Volumes

B1 Shim mode	TrueForm
Excitation	Slab-sel.

System - Tx/Rx

Frequency 1H	297.210683 MHz
Correction factor	1
Gain	High
Img. Scale Cor.	0.600
Reset	Off
! Ref. amplitude 1H	250.000 V

Sequence - Part 1

Introduction	On
Dimension	3D
Reordering	Linear
Asymmetric echo	Off
Contrasts	1
Multi-slice mode	Interleaved
Echo spacing	1.06 ms
Bandwidth	1028 Hz/Px

Sequence - Part 2

EPI factor	32

Sequence - Part 2

Segmentation	3
RF pulse type	Normal
Gradient mode	Fast
Excitation	Slab-sel.
RF spoiling	On
Turbo factor	18

Sequence - Special

PATRef FA	3 deg
RF duration	2000 us
RF BWT product	15
Ernst T1	1200 ms
PATRef prep. shots	10
Volume dummy shots	0
Dummy Measurements	0
Invert PE	Off
Min. TE if PF	On
Echo Time Shift	On
Ramp Sampling	On
NORDIC	On
Water Exc.	-none-
External PC	per Series
Saturation RF	per Shot
EPI rise time factor	1.00
Mosaic DICOMs	On
Modify Ice Config	On
GRAPPA Regularization	50000 10^-6
HSN RF power scale	2.50
Inversion Delay	650 ms
Relaxation Delay	0 ms
Var. FA /MAGEC	4

Sequence - Assistant

Mode	Off

\\USER\Test\Joseph\20210920_VASOremote\rslh_ep3d_vaso_p45_ESp083_LR

TA: 8:39 PM: REF Voxel size: 0.5×0.5×0.4 mmPAT: 3 Rel. SNR: 1.00 : d238999c

Properties

Prio recon	Off
Load images to viewer	On
Inline movie	Off
Auto store images	On
Load images to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Auto close inline display	Off
Start measurement without further preparation	Off
Wait for user to start	Off
Start measurements	Single measurement

Routine

Slab group	1
Slabs	1
Position	L0.0 P46.1 H16.9 mm
Orientation	C > T-36.7
Phase enc. dir.	R >> L
AutoAlign	---
Slab Scale	-10 %
Slices per slab	18
FoV read	170 mm
FoV phase	100.0 %
Slice thickness	0.45 mm
TR 1	43.4 ms
TR 2	5120 ms
TE 1	15.30 ms
Averages	1
Multi-echo Shots	1
Filter	Distortion Corr.(3D)
Coil elements	R96

Contrast - Common

TR 1	43.4 ms
TR 2	5120 ms
TE 1	15.30 ms
Multi-echo spacing	39.85 ms
Magn. preparation	Non-sel. HSN IR
TI 1	1050.6 ms
TI 2	1831.8 ms
Flip angle	40 deg
Fat suppr.	Fat sat.
Magn. Prep. Shots	2

Contrast - Dynamic

Averages	1
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	100
Pause after meas.	0.0 s

Resolution - Common

FoV read	170 mm
FoV phase	100.0 %
Slice thickness	0.45 mm
Base resolution	374
Phase resolution	100 %
Slice resolution	100 %
Phase partial Fourier	6/8

Resolution - Common

Slice partial Fourier	Off
Interpolation	Off

Resolution - iPAT

PAT mode	CAIPIRINHA
Acc. factor PE	3
Ref. lines PE	75
Acc. factor 3D	1
Ref. lines 3D	16
CAIPI 3D Shift	0
Reference Scan Mode	GRE/separate
CAIPIRINHA mode	Free

Resolution - Filter Image

Image Filter	Off
Distortion Corr.	On
Mode	3D
Unfiltered images	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off

Resolution - Filter Rawdata

Raw filter	Off
Elliptical filter	Off

Geometry - Common

Slab group	1
Slabs	1
Position	L0.0 P46.1 H16.9 mm
Orientation	C > T-36.7
Phase enc. dir.	R >> L
Slab Scale	-10 %
Slices per slab	18
FoV read	170 mm
FoV phase	100.0 %
Slice thickness	0.45 mm
TR 1	43.4 ms
TR 2	5120 ms
Multi-slice mode	Interleaved
Series	Ascending
Multi-echo Shots	1

Geometry - AutoAlign

Slab group	1
Position	L0.0 P46.1 H16.9 mm
Orientation	C > T-36.7
Phase enc. dir.	R >> L
AutoAlign	---
Initial Position	L0.0 P46.1 H16.9
L	0.0 mm
P	46.1 mm
H	16.9 mm
Initial Rotation	0.00 deg
Initial Orientation	C > T
C > T	-36.7
> S	0.0

Geometry - Saturation

Saturation mode	Standard

Geometry - Saturation

Fat suppr.	Fat sat.

Geometry - Tim Planning Suite

Set-n-Go Protocol	Off
Table position	H
Table position	0 mm
Inline Composing	Off

System - Miscellaneous

Positioning mode	REF
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combine Mode	Sum of Squares
Save uncombined	On
Matrix Optimization	Off
AutoAlign	---
Coil Select Mode	Default

System - Adjustments

B0 Shim mode	Standard
B1 Shim mode	TrueForm
Confirm freq. adjustment	Off
Assume Dominant Fat	Off
Assume Silicone	Off
Adjustment Tolerance	Auto

System - Adjust Volume

! Position	L0.0 P38.2 H14.8 mm
! Orientation	C > T-36.9
! Rotation	0.00 deg
! R >> L	170 mm
! F >> H	170 mm
! A >> P	47 mm
Reset	Off

System - pTx Volumes

B1 Shim mode	TrueForm
Excitation	Slab-sel.

System - Tx/Rx

Frequency 1H	297.210683 MHz
Correction factor	1
Gain	High
Img. Scale Cor.	0.600
Reset	Off
! Ref. amplitude 1H	300.000 V

Sequence - Part 1

Introduction	On
Dimension	3D
Reordering	Linear
Asymmetric echo	Off
Contrasts	1
Multi-slice mode	Interleaved
Echo spacing	0.83 ms
Bandwidth	1336 Hz/Px

Sequence - Part 2

EPI factor	47

Sequence - Part 2

Segmentation	2
RF pulse type	Normal
Gradient mode	Fast
Excitation	Slab-sel.
RF spoiling	On
Turbo factor	18

Sequence - Special

PATRef FA	3 deg
RF duration	2000 us
RF BWT product	15
Ernst T1	1200 ms
PATRef prep. shots	10
Volume dummy shots	0
Dummy Measurements	0
Invert PE	Off
Min. TE if PF	On
Echo Time Shift	On
Ramp Sampling	On
NORDIC	On
Water Exc.	-none-
External PC	per Series
Saturation RF	per Shot
EPI rise time factor	1.00
Mosaic DICOMs	Off
Modify Ice Config	Off
HSN RF power scale	2.50
Inversion Delay	650 ms
Relaxation Delay	0 ms
Var. FA /MAGEC	4

Sequence - Assistant

Mode	Off

\\USER\Test\Joseph\20210920_VASOremote\rsIh_ep3d_vaso_p45__ES0p83_seg3

TA: 10:57 PM: FIX Voxel size: 0.5×0.5×0.4 mmPAT: 3 Rel. SNR: 1.00 : d238999c

Properties

Prio recon	Off
Load images to viewer	On
Inline movie	Off
Auto store images	On
Load images to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Auto close inline display	Off
Start measurement without further preparation	Off
Wait for user to start	Off
Start measurements	Single measurement

Routine

Slab group	1
Slabs	1
Position	L0.0 P46.1 H16.9 mm
Orientation	C > T-36.7
Phase enc. dir.	R >> L
AutoAlign	---
Slab Scale	-10 %
Slices per slab	18
FoV read	170 mm
FoV phase	100.0 %
Slice thickness	0.45 mm
TR 1	31.1 ms
TR 2	6502 ms
TE 1	11.00 ms
Averages	1
Multi-echo Shots	1
Filter	Distortion Corr.(3D)
Coil elements	R96

Contrast - Common

TR 1	31.1 ms
TR 2	6502 ms
TE 1	11.00 ms
Multi-echo spacing	27.2 ms
Magn. preparation	Non-sel. HSN IR
TI 1	989.9 ms
TI 2	1549.7 ms
Flip angle	40 deg
Fat suppr.	Fat sat.
Magn. Prep. Shots	3

Contrast - Dynamic

Averages	1
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	100
Pause after meas.	0.0 s

Resolution - Common

FoV read	170 mm
FoV phase	100.0 %
Slice thickness	0.45 mm
Base resolution	374
Phase resolution	100 %
Slice resolution	100 %
Phase partial Fourier	6/8

Resolution - Common

Slice partial Fourier	Off
Interpolation	Off

Resolution - iPAT

PAT mode	CAIPIRINHA
Acc. factor PE	3
Ref. lines PE	75
Acc. factor 3D	1
Ref. lines 3D	16
CAIPI 3D Shift	0
Reference Scan Mode	GRE/separate
CAIPIRINHA mode	Free

Resolution - Filter Image

Image Filter	Off
Distortion Corr.	On
Mode	3D
Unfiltered images	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off

Resolution - Filter Rawdata

Raw filter	Off
Elliptical filter	Off

Geometry - Common

Slab group	1
Slabs	1
Position	L0.0 P46.1 H16.9 mm
Orientation	C > T-36.7
Phase enc. dir.	R >> L
Slab Scale	-10 %
Slices per slab	18
FoV read	170 mm
FoV phase	100.0 %
Slice thickness	0.45 mm
TR 1	31.1 ms
TR 2	6502 ms
Multi-slice mode	Interleaved
Series	Ascending
Multi-echo Shots	1

Geometry - AutoAlign

Slab group	1
Position	L0.0 P46.1 H16.9 mm
Orientation	C > T-36.7
Phase enc. dir.	R >> L
AutoAlign	---
Initial Position	L0.0 P46.1 H16.9
L	0.0 mm
P	46.1 mm
H	16.9 mm
Initial Rotation	0.00 deg
Initial Orientation	C > T
C > T	-36.7
> S	0.0

Geometry - Saturation

Saturation mode	Standard

Geometry - Saturation

Fat suppr.	Fat sat.

Geometry - Tim Planning Suite

Set-n-Go Protocol	Off
Table position	H
Table position	0 mm
Inline Composing	Off

System - Miscellaneous

Positioning mode	FIX
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combine Mode	Sum of Squares
Save uncombined	Off
Matrix Optimization	Off
AutoAlign	---
Coil Select Mode	Default

System - Adjustments

B0 Shim mode	Standard
B1 Shim mode	TrueForm
Confirm freq. adjustment	Off
Assume Dominant Fat	Off
Assume Silicone	Off
Adjustment Tolerance	Auto

System - Adjust Volume

! Position	L0.0 P38.2 H14.8 mm
! Orientation	C > T-36.9
! Rotation	0.00 deg
! R >> L	170 mm
! F >> H	170 mm
! A >> P	47 mm
Reset	Off

System - pTx Volumes

B1 Shim mode	TrueForm
Excitation	Slab-sel.

System - Tx/Rx

Frequency 1H	297.210683 MHz
Correction factor	1
Gain	High
Img. Scale Cor.	0.600
Reset	Off
! Ref. amplitude 1H	250.000 V

Sequence - Part 1

Introduction	On
Dimension	3D
Reordering	Linear
Asymmetric echo	Off
Contrasts	1
Multi-slice mode	Interleaved
Echo spacing	0.83 ms
Bandwidth	1336 Hz/Px

Sequence - Part 2

EPI factor	32

Sequence - Part 2

Segmentation	3
RF pulse type	Normal
Gradient mode	Fast
Excitation	Slab-sel.
RF spoiling	On
Turbo factor	18

Sequence - Special

PATRef FA	3 deg
RF duration	2000 us
RF BWT product	15
Ernst T1	1200 ms
PATRef prep. shots	10
Volume dummy shots	0
Dummy Measurements	0
Invert PE	Off
Min. TE if PF	On
Echo Time Shift	On
Ramp Sampling	On
NORDIC	On
Water Exc.	-none-
External PC	per Series
Saturation RF	per Shot
EPI rise time factor	1.00
Mosaic DICOMs	On
Modify Ice Config	On
GRAPPA Regularization	50000 10^-6
HSN RF power scale	2.50
Inversion Delay	700 ms
Relaxation Delay	0 ms
Var. FA /MAGEC	4

Sequence - Assistant

Mode	Off

\\USER\Test\Joseph\20210920_VASOremote\gre_with RF_4 slices_uncombined

TA: 3:41 PM: FIX Voxel size: 0.2×0.2×0.8 mmPAT: 3 Rel. SNR: 1.00 : fl

Properties

Prio recon	Off
Load images to viewer	On
Inline movie	Off
Auto store images	On
Load images to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Auto close inline display	Off
Start measurement without further preparation	Off
Wait for user to start	Off
Start measurements	Single measurement

Routine

Slice group	1
Slices	25
Dist. factor	0 %
Position	L0.0 P46.1 H16.9 mm
Orientation	C > T-36.7
Phase enc. dir.	R >> L
AutoAlign	---
Phase oversampling	0 %
FoV read	180 mm
FoV phase	100.0 %
Slice thickness	0.8 mm
TR	627.0 ms
TE	14.00 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	R96

Contrast - Common

TR	627.0 ms
TE	14.00 ms
MTC	Off
Magn. preparation	None
Flip angle	45 deg
Fat suppr.	None
Water suppr.	None
SWI	Off

Contrast - Dynamic

Averages	1
Averaging mode	Short term
Reconstruction	Magn./Phase
Measurements	1
Multiple series	Each measurement

Resolution - Common

FoV read	180 mm
FoV phase	100.0 %
Slice thickness	0.8 mm
Base resolution	960
Phase resolution	100 %
Phase partial Fourier	Off
Interpolation	Off

Resolution - iPAT

PAT mode	GRAPPA

Resolution - iPAT

Accel. factor PE	3
Ref. lines PE	45
Reference scan mode	Integrated

Resolution - Filter Image

Image Filter	Off
Distortion Corr.	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off

Resolution - Filter Rawdata

Raw filter	Off
Elliptical filter	Off

Geometry - Common

Slice group	1
Slices	25
Dist. factor	0 %
Position	L0.0 P46.1 H16.9 mm
Orientation	C > T-36.7
Phase enc. dir.	R >> L
FoV read	180 mm
FoV phase	100.0 %
Slice thickness	0.8 mm
TR	627.0 ms
Multi-slice mode	Interleaved
Series	Interleaved
Concatenations	1

Geometry - AutoAlign

Slice group	1
Position	L0.0 P46.1 H16.9 mm
Orientation	C > T-36.7
Phase enc. dir.	R >> L
AutoAlign	---
Initial Position	L0.0 P46.1 H16.9
L	0.0 mm
P	46.1 mm
H	16.9 mm
Initial Rotation	0.00 deg
Initial Orientation	C > T
C > T	-36.7
> S	0.0

Geometry - Saturation

Saturation mode	Standard
Fat suppr.	None
Water suppr.	None
Special sat.	None

Geometry - Tim Planning Suite

Set-n-Go Protocol	Off
Table position	H
Table position	0 mm
Inline Composing	Off

Geometry - Tim CT

Tim CT mode	Off
Slices	25

Geometry - Tim CT

Slice thickness	0.8 mm
Dist. factor	0 %
FoV read	180 mm
FoV phase	100.0 %
Segments	1

System - Miscellaneous

Positioning mode	FIX
Table position	F
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combine Mode	Adaptive Combine
Save uncombined	Off
Matrix Optimization	Off
AutoAlign	---
Coil Select Mode	Default

System - Adjustments

B0 Shim mode	Standard
B1 Shim mode	TrueForm
Confirm freq. adjustment	Off
Assume Dominant Fat	Off
Assume Silicone	Off
Adjustment Tolerance	Auto

System - Adjust Volume

! Position	L0.0 P38.2 H14.8 mm
! Orientation	C > T-36.9
! Rotation	0.00 deg
! R >> L	170 mm
! F >> H	170 mm
! A >> P	47 mm
Reset	Off

System - pTx Volumes

B1 Shim mode	TrueForm
Excitation	Slice-sel.

System - Tx/Rx

Frequency 1H	297.210683 MHz
Correction factor	1
Gain	High
Img. Scale Cor.	1.000
Reset	Off
! Ref. amplitude 1H	27.000 V

Physio - Signal1

1st Signal/Mode	None
TR	627.0 ms
Concatenations	1
Segments	1

Physio - Cardiac

Tagging	None
Magn. preparation	None
Fat suppr.	None
Dark blood	Off
FoV read	180 mm
FoV phase	100.0 %
Phase resolution	100 %

Physio - PACE

Resp. control	Off
Concatenations	1

Inline - Common

Subtract	Off
Measurements	1
StdDev	Off
Liver registration	Off
Save original images	On

Inline - MIP

MIP-Sag	Off
MIP-Cor	Off
MIP-Tra	Off
MIP-Time	Off
Save original images	On

Inline - Soft Tissue

Wash - In	Off
Wash - Out	Off
TTP	Off
PEI	Off
MIP - time	Off
Measurements	1

Inline - Composing

Inline Composing	Off
Distortion Corr.	Off

Inline - MapIt

Save original images	On
MapIt	None
Flip angle	45 deg
Measurements	1
Contrasts	1
TR	627.0 ms
TE	14.00 ms

Sequence - Part 1

Introduction	On
Dimension	2D
Phase stabilisation	Off
Asymmetric echo	Off
Contrasts	1
Flow comp.	No
Multi-slice mode	Interleaved
Bandwidth	60 Hz/Px

Sequence - Part 2

Segments	1
Acoustic noise reduction	None
RF pulse type	Normal
Gradient mode	Fast
Excitation	Slice-sel.
RF spoiling	On

Sequence - Assistant

Mode	Off

\\USER\Test\Joseph\20210920_VASOremote\mp2rage_tfl_renzo

TA: 27:47 PM: FIX Voxel size: 0.3×0.3×0.3 mmPAT: 2 Rel. SNR: 1.00 : renzo

Properties

Prio recon	Off
Load images to viewer	On
Inline movie	Off
Auto store images	On
Load images to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Auto close inline display	Off
Start measurement without further preparation	Off
Wait for user to start	Off
Start measurements	Single measurement

Routine

Slab group	1
Slabs	1
Dist. factor	50 %
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
AutoAlign	Head > Basis
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	72
FoV read	180 mm
FoV phase	98.5 %
Slice thickness	0.35 mm
TR	5140.0 ms
TE	3.97 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	R96

Contrast - Common

TR	5140.0 ms
TE	3.97 ms
Magn. preparation	Non-sel. IR
TI 1	1290 ms
TI 2	3860 ms
Flip angle 1	9.0 deg
Flip angle 2	7.0 deg
Fat suppr.	None
Water suppr.	None

Contrast - Dynamic

Averages	1
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	6
Pause after meas. 1	0.0 s
Pause after meas. 2	0.0 s
Pause after meas. 3	0.0 s
Pause after meas. 4	0.0 s
Pause after meas. 5	0.0 s
Multiple series	Each measurement

Resolution - Common

FoV read	180 mm
FoV phase	98.5 %

Resolution - Common

Slice thickness	0.35 mm
Base resolution	520
Phase resolution	100 %
Slice resolution	100 %
Phase partial Fourier	Off
Slice partial Fourier	6/8
Interpolation	Off

Resolution - iPAT

PAT mode	GRAPPA
Accel. factor PE	2
Ref. lines PE	24
Accel. factor 3D	1
Reference scan mode	Integrated

Resolution - Filter Image

Image Filter	Off
Distortion Corr.	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off

Resolution - Filter Rawdata

Raw filter	Off
Elliptical filter	Off

Geometry - Common

Slab group	1
Slabs	1
Dist. factor	50 %
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
Slice oversampling	0.0 %
Slices per slab	72
FoV read	180 mm
FoV phase	98.5 %
Slice thickness	0.35 mm
TR	5140.0 ms
Multi-slice mode	Single shot
Series	Interleaved
Concatenations	1

Geometry - AutoAlign

Slab group	1
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
AutoAlign	Head > Basis
Initial Position	Isocenter
L	0.0 mm
P	0.0 mm
H	0.0 mm
Initial Rotation	0.00 deg
Initial Orientation	Transversal

Geometry - Navigator

Geometry - Tim Planning Suite

Set-n-Go Protocol	Off

Geometry - Tim Planning Suite

Table position	H
Table position	0 mm
Inline Composing	Off

System - Miscellaneous

Positioning mode	FIX
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combine Mode	Sum of Squares
Save uncombined	Off
Matrix Optimization	Off
AutoAlign	Head > Basis
Coil Select Mode	Default

System - Adjustments

B0 Shim mode	Standard
B1 Shim mode	TrueForm
Confirm freq. adjustment	Off
Assume Dominant Fat	Off
Assume Silicone	Off
Adjustment Tolerance	Auto

System - Adjust Volume

Position	Isocenter
Orientation	Transversal
Rotation	0.00 deg
A >> P	178 mm
R >> L	180 mm
F >> H	26 mm
Reset	Off

System - pTx Volumes

B1 Shim mode	TrueForm
Excitation	Slab-sel.

System - Tx/Rx

Frequency 1H	297.210683 MHz
Correction factor	1
Gain	High
Img. Scale Cor.	1.000
Reset	Off
? Ref. amplitude 1H	0.000 V

Physio - Signal1

1st Signal/Mode	None
TR	5140.0 ms
Concatenations	1

Physio - Cardiac

Magn. preparation	Non-sel. IR
TI 1	1290 ms
TI 2	3860 ms
Fat suppr.	None
Dark blood	Off
FoV read	180 mm
FoV phase	98.5 %
Phase resolution	100 %

Physio - PACE

Resp. control	Off
Concatenations	1

Inline - Common

Subtract	Off
Measurements	6
StdDev	Off
Save original images	On

Inline - MIP

MIP-Sag	Off
MIP-Cor	Off
MIP-Tra	Off
MIP-Time	Off
Save original images	On

Inline - Composing

Inline Composing	Off
Distortion Corr.	Off

Inline - MapIt

Save original images	On
MapIt	None
Flip angle 1	9.0 deg
Flip angle 2	7.0 deg
Measurements	6
TR	5140.0 ms
TE	3.97 ms

Sequence - Part 1

Introduction	On
Dimension	3D
Elliptical scanning	Off
Reordering	Linear rot.
Asymmetric echo	Allowed
Flow comp.	No
Multi-slice mode	Single shot
Echo spacing	9.5 ms
Bandwidth	250 Hz/Px

Sequence - Part 2

RF pulse type	Normal
Gradient mode	Fast
Excitation	Slab-sel.
RF spoiling	On
Incr. Gradient spoiling	Off
Turbo factor	511

Sequence - Assistant

Mode	Off

\\USER\Test\Joseph\20210920_VASOremote\renzo_IR_localizer_visual

TA: 1:05 PM: REF Voxel size: 1.3×1.3×3.0 mmPAT: Off Rel. SNR: 1.00 : tfl

Properties

Prio recon	Off
Load images to viewer	On
Inline movie	Off
Auto store images	On
Load images to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Auto close inline display	Off
Start measurement without further preparation	Off
Wait for user to start	Off
Start measurements	Single measurement

Routine

Slice group	1
Slices	7
Dist. factor	50 %
Position	R2.2 P81.4 H0.0 mm
Orientation	Coronal
Phase enc. dir.	R >> L
Slice group	2
Slices	7
Dist. factor	150 %
Position	R0.2 P2.0 F12.7 mm
Orientation	Transversal
Phase enc. dir.	A >> P
Slice group	3
Slices	7
Dist. factor	120 %
Position	L0.0 P2.6 F10.2 mm
Orientation	Sagittal
Phase enc. dir.	A >> P
AutoAlign	---
Phase oversampling	0 %
FoV read	240 mm
FoV phase	100.0 %
Slice thickness	3.0 mm
TR	3000.0 ms
TE	2.34 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	R96

Contrast - Common

TR	3000.0 ms
TE	2.34 ms
Magn. preparation	Slice-sel. IR
TI	1100 ms
Flip angle	6.0 deg
Fat suppr.	None
Water suppr.	None

Contrast - Dynamic

Averages	1
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	1
Multiple series	Each measurement

Resolution - Common

FoV read	240 mm
FoV phase	100.0 %
Slice thickness	3.0 mm
Base resolution	192
Phase resolution	100 %
Phase partial Fourier	Off
Interpolation	Off

Resolution - iPAT

PAT mode	None

Resolution - Filter Image

Image Filter	Off
Distortion Corr.	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off

Resolution - Filter Rawdata

Raw filter	Off
Elliptical filter	Off

Geometry - Common

Slice group	1
Slices	7
Dist. factor	50 %
Position	R2.2 P81.4 H0.0 mm
Orientation	Coronal
Phase enc. dir.	R >> L
Slice group	2
Slices	7
Dist. factor	150 %
Position	R0.2 P2.0 F12.7 mm
Orientation	Transversal
Phase enc. dir.	A >> P
Slice group	3
Slices	7
Dist. factor	120 %
Position	L0.0 P2.6 F10.2 mm
Orientation	Sagittal
Phase enc. dir.	A >> P
FoV read	240 mm
FoV phase	100.0 %
Slice thickness	3.0 mm
TR	3000.0 ms
Multi-slice mode	Single shot
Series	Interleaved
Concatenations	1

Geometry - AutoAlign

Slice group	1
Position	R2.2 P81.4 H0.0 mm
Orientation	Coronal
Phase enc. dir.	R >> L
Slice group	2
Position	R0.2 P2.0 F12.7 mm
Orientation	Transversal
Phase enc. dir.	A >> P
Slice group	3
Position	L0.0 P2.6 F10.2 mm

Geometry - AutoAlign

Orientation	Sagittal
Phase enc. dir.	A >> P
AutoAlign	---
Initial Position	R2.2 P81.4 H0.0
R	2.2 mm
P	81.4 mm
H	0.0 mm
Initial Rotation	0.00 deg
Initial Orientation	Coronal

Geometry - Navigator

Geometry - Tim Planning Suite

Set-n-Go Protocol	Off
Table position	H
Table position	0 mm
Inline Composing	Off

System - Miscellaneous

Positioning mode	REF
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combine Mode	Sum of Squares
Save uncombined	Off
Matrix Optimization	Off
AutoAlign	---
Coil Select Mode	Default

System - Adjustments

B0 Shim mode	Tune up
B1 Shim mode	TrueForm
Confirm freq. adjustment	Off
Assume Dominant Fat	Off
Assume Silicone	Off
Adjustment Tolerance	Auto

System - Adjust Volume

Position	Isocenter
Orientation	Transversal
Rotation	0.00 deg
A >> P	263 mm
R >> L	350 mm
F >> H	350 mm
Reset	Off

System - pTx Volumes

B1 Shim mode	TrueForm
Excitation	Slice-sel.

System - Tx/Rx

Frequency 1H	297.210683 MHz
Correction factor	1
Gain	High
Img. Scale Cor.	1.000
Reset	Off
? Ref. amplitude 1H	0.000 V

Physio - Signal1

1st Signal/Mode	None

Physio - Signal1

TR	3000.0 ms
Concatenations	1

Physio - Cardiac

Magn. preparation	Slice-sel. IR
TI	1100 ms
Fat suppr.	None
Dark blood	Off
FoV read	240 mm
FoV phase	100.0 %
Phase resolution	100 %

Physio - PACE

Resp. control	Off
Concatenations	1

Inline - Common

Subtract	Off
Measurements	1
StdDev	Off
Save original images	On

Inline - MIP

MIP-Sag	Off
MIP-Cor	Off
MIP-Tra	Off
MIP-Time	Off
Save original images	On

Inline - Composing

Inline Composing	Off
Distortion Corr.	Off

Inline - MapIt

Save original images	On
MapIt	None
Flip angle	6.0 deg
Measurements	1
TR	3000.0 ms
TE	2.34 ms

Sequence - Part 1

Introduction	On
Dimension	2D
Asymmetric echo	Allowed
Flow comp.	No
Multi-slice mode	Single shot
Echo spacing	6.2 ms
Bandwidth	240 Hz/Px

Sequence - Part 2

RF pulse type	Normal
Gradient mode	Normal
Excitation	Slice-sel.
RF spoiling	On
Incr. Gradient spoiling	Off
Turbo factor	192

Sequence - Assistant

Mode	Off

\\USER\Test\Joseph\20210920_VASOremote\rslh_ep3d_vaso_p5_protocol_Renzo_20211011

TA: 14:54 PM: REF Voxel size: 0.5×0.5×0.4 mmPAT: 3 Rel. SNR: 1.00 : d238999c

Properties

Prio recon	Off
Load images to viewer	On
Inline movie	Off
Auto store images	On
Load images to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Auto close inline display	Off
Start measurement without further preparation	Off
Wait for user to start	Off
Start measurements	Single measurement

Routine

Slab group	1
Slabs	1
Position	L0.0 P40.5 H20.0 mm
Orientation	C > T-44.3
Phase enc. dir.	R >> L
AutoAlign	---
Slab Scale	-10 %
Slices per slab	18
FoV read	170 mm
FoV phase	100.0 %
Slice thickness	0.45 mm
TR 1	54.4 ms
TR 2	5912 ms
TE 1	19.00 ms
Averages	1
Multi-echo Shots	1
Filter	Distortion Corr.(3D)
Coil elements	R96

Contrast - Common

TR 1	54.4 ms
TR 2	5912 ms
TE 1	19.00 ms
Multi-echo spacing	50.67 ms
Magn. preparation	Non-sel. HSN IR
TI 1	1149.6 ms
TI 2	2128.8 ms
Flip angle	40 deg
Fat suppr.	Fat sat.
Magn. Prep. Shots	2

Contrast - Dynamic

Averages	1
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	150
Pause after meas.	0.0 s

Resolution - Common

FoV read	170 mm
FoV phase	100.0 %
Slice thickness	0.45 mm
Base resolution	374
Phase resolution	100 %
Slice resolution	100 %
Phase partial Fourier	6/8

Resolution - Common

Slice partial Fourier	Off
Interpolation	Off

Resolution - iPAT

PAT mode	CAIPIRINHA
Acc. factor PE	3
Ref. lines PE	75
Acc. factor 3D	1
Ref. lines 3D	16
CAIPI 3D Shift	0
Reference Scan Mode	GRE/separate
CAIPIRINHA mode	Free

Resolution - Filter Image

Image Filter	Off
Distortion Corr.	On
Mode	3D
Unfiltered images	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off

Resolution - Filter Rawdata

Raw filter	Off
Elliptical filter	Off

Geometry - Common

Slab group	1
Slabs	1
Position	L0.0 P40.5 H20.0 mm
Orientation	C > T-44.3
Phase enc. dir.	R >> L
Slab Scale	-10 %
Slices per slab	18
FoV read	170 mm
FoV phase	100.0 %
Slice thickness	0.45 mm
TR 1	54.4 ms
TR 2	5912 ms
Multi-slice mode	Interleaved
Series	Ascending
Multi-echo Shots	1

Geometry - AutoAlign

Slab group	1
Position	L0.0 P40.5 H20.0 mm
Orientation	C > T-44.3
Phase enc. dir.	R >> L
AutoAlign	---
Initial Position	L0.0 P40.5 H20.0
L	0.0 mm
P	40.5 mm
H	20.0 mm
Initial Rotation	0.00 deg
Initial Orientation	C > T
C > T	-44.3
> S	0.0

Geometry - Saturation

Saturation mode	Standard

Geometry - Saturation

Fat suppr.	Fat sat.

Geometry - Tim Planning Suite

Set-n-Go Protocol	Off
Table position	H
Table position	0 mm
Inline Composing	Off

System - Miscellaneous

Positioning mode	REF
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combine Mode	Sum of Squares
Save uncombined	Off
Matrix Optimization	Off
AutoAlign	---
Coil Select Mode	Default

System - Adjustments

B0 Shim mode	Tune up
B1 Shim mode	TrueForm
Confirm freq. adjustment	Off
Assume Dominant Fat	Off
Assume Silicone	Off
Adjustment Tolerance	Auto

System - Adjust Volume

! Position	L0.0 P39.5 H14.9 mm
! Orientation	T > C-43.8
! Rotation	0.00 deg
! A >> P	167 mm
! R >> L	350 mm
! F >> H	33 mm
Reset	Off

System - pTx Volumes

B1 Shim mode	TrueForm
Excitation	Slab-sel.

System - Tx/Rx

Frequency 1H	297.210683 MHz
Correction factor	1
Gain	High
Img. Scale Cor.	0.600
Reset	Off
! Ref. amplitude 1H	280.000 V

Sequence - Part 1

Introduction	On
Dimension	3D
Reordering	Linear
Asymmetric echo	Off
Contrasts	1
Multi-slice mode	Interleaved
Echo spacing	1.06 ms
Bandwidth	1028 Hz/Px

Sequence - Part 2

EPI factor	47

Sequence - Part 2

Segmentation	2
RF pulse type	Normal
Gradient mode	Fast
Excitation	Slab-sel.
RF spoiling	On
Turbo factor	18

Sequence - Special

PATRef FA	3 deg
RF duration	2000 us
RF BWT product	15
Ernst T1	1200 ms
PATRef prep. shots	10
Volume dummy shots	0
Dummy Measurements	0
Invert PE	Off
Min. TE if PF	On
Echo Time Shift	On
Ramp Sampling	On
NORDIC	On
Water Exc.	-none-
External PC	per Series
Saturation RF	per Shot
EPI rise time factor	1.00
Mosaic DICOMs	On
Modify Ice Config	On
GRAPPA Regularization	50000 10^-6
HSN RF power scale	2.50
Inversion Delay	650 ms
Relaxation Delay	0 ms
Var. FA /MAGEC	4

Sequence - Assistant

Mode	Off