\\USER\RenzoHuber\Lonike_20201118\executed_VASO20201118\Checklist_ok
TA: 1:11 PAT: Off Voxel size: 1.0×1.0×5.0 mm Rel. SNR: 1.00 SIEMENS: tfl

Properties		PAT mode	None
Prio Recon	Off	Image Filter	Off
Before measurement		Distortion Corr.	Off
After measurement		Prescan Normalize	Off
Load to viewer	On	Normalize	Off
Inline movie	Off	B1 filter	Off
Auto store images	On		
Load to stamp segments	Off	Raw filter	Off
Load images to graphic	Off	Elliptical filter	Off
segments		Geometry	
Auto open inline display	Off	Multi-slice mode	Single shot
Start measurement without	Off	Series	Interleaved
further preparation			
Wait for user to start	Off	Table a section	
Start measurements	single	Table position	H
1	Single	Table position	0 mm
Routine		Inline Composing	Off
Slice group 1		System	
Slices	11	V32	Off
Dist. factor	150 %	A32	On
Position	R1.8 A19.9 F14.3		
Orientation	Sagittal	Positioning mode	REF
Phase enc. dir.	A >> P	MSMA	S - C - T
Rotation	0.00 deg	Sagittal	R >> L
Slice group 2		Coronal	A >> P
Slices	5	Transversal	F >> H
Dist. factor	100 %	Save uncombined	Off
Position	R2.3 A15.9 H1.4	Coil Combine Mode	Adaptive Combine
Orientation	Transversal	AutoAlign	
		Auto Coil Select	Default
Phase enc. dir.	A >> P	Auto Coli Select	
Rotation	0.00 deg	Shim mode	Tune up
Slice group 3	_	Adjust with body coil	Off
Slices	7	Confirm freq. adjustment	Off
Dist. factor	200 %	Assume Silicone	Off
Position	R1.5 A21.4 F6.6	! Ref. amplitude 1H	220.000 V
Orientation	Coronal	Adjustment Tolerance	Auto
Phase enc. dir.	R >> L	Adjust volume	71010
Rotation	0.00 deg	! Position	L0.0 A23.4 F1.3
Phase oversampling	0 %	! Orientation	Transversal
FoV read	200 mm	! Rotation	0.00 deg
FoV phase	100.0 %	! R >> L	<u> </u>
Slice thickness	5.0 mm		350 mm
TR	3000 ms	! A >> P	213 mm
TE	2.24 ms	! F >> H	189 mm
Averages	1	Physio	
Concatenations	1	1st Signal/Mode	None
Filter	None		
Coil elements	A32	Dark blood	Off
1		Poen control	Off
Contrast		Resp. control	Off
Magn. preparation	Slice-sel. IR	Inline	
TI	1100 ms	Subtract	Off
Flip angle	6 deg	Std-Dev-Sag	Off
Fat suppr.	None	Std-Dev-Cor	Off
Water suppr.	None	Std-Dev-Tra	Off
		Std-Dev-Time	Off
Averaging mode	Long term	MIP-Sag	Off
Reconstruction	Magnitude	MIP-Cor	Off
Measurements	1	MIP-Tra	Off
Multiple series	Each measurement	MIP-Tra MIP-Time	Off
Resolution			
	192	Save original images	On
Base resolution		2	
Phase resolution	100 %	Sequence	
Phase partial Fourier	Off	Introduction	On
Interpolation	Off	1/4	

ed z/Px s
sel.

\\USER\RenzoHuber\Lonike_20201118\executed_VASO20201118\cubric_mp2rage_fatnav_ICE900_0p7_pPF TA: 11:58 PAT: 3 Voxel size: 0.7×0.7×0.7 mm Rel. SNR: 1.00 USER: cubric_mp2rage_fatnav_ICE900

		Image Filter	Off
Properties		Distortion Corr.	Off
Prio Recon	Off	Prescan Normalize	Off
Before measurement		Normalize	Off
After measurement		B1 filter	Off
Load to viewer	On	Raw filter	Off
Inline movie	Off	Elliptical filter	Off
Auto store images	On	Elliptical filter	Oli
Load to stamp segments	Off	Geometry	
Load images to graphic	Off	Multi-slice mode	Single shot
segments		Series	Interleaved
Auto open inline display	Off		
Start measurement without	On	Table position	H
further preparation		Table position	0 mm
Wait for user to start	Off	Inline Composing	Off
Start measurements	single		
Routine	3	System	0"
Slab group 1		V32	Off
Slabs	1	A32	On
Dist. factor	1 50 %	Positioning mode	REF
Position	L0.0 A27.8 F7.0	MSMA	S - C - T
		Sagittal	R >> L
Orientation Phase enc. dir.	Sagittal A >> P	Coronal	A >> P
		Transversal	F >> H
Rotation	0.00 deg 0 %	Save uncombined	Off
Phase oversampling		Coil Combine Mode	Adaptive Combine
Slice oversampling	0.0 %	AutoAlign	
Slices per slab	256	Auto Coil Select	Default
FoV read	210 mm		
FoV phase	100.0 %	Shim mode	Tune up
Slice thickness	0.70 mm	Adjust with body coil	Off
TR	6000 ms	Confirm freq. adjustment	Off
TE	2.39 ms	Assume Silicone	Off
Averages	1	? Ref. amplitude 1H	0.000 V
Concatenations	1	Adjustment Tolerance	Auto
Filter	None	Adjust volume	
Coil elements	A32	! Position	L0.0 A22.7 H15.9
Contrast		! Orientation	Transversal
Magn. preparation	Non-sel. IR	! Rotation	0.00 deg
TI 1	800 ms	! R >> L	174 mm
TI 2	2750 ms	! A >> P	180 mm
Flip angle 1	4 deg	! F >> H	49 mm
Flip angle 2	5 deg	•	
Fat suppr.	None	Physio	
Water suppr.	None	1st Signal/Mode	None
2nd Inversion Contrast	On	Dark blood	Off
Averaging mode	Long term	Resp. control	Off
Reconstruction	Magn./Phase	Inline	
Measurements	<u>1</u> .	Subtract	Off
Multiple series	Each measurement	Std-Dev-Sag	Off
Resolution		Std-Dev-Cor	Off
Base resolution	300	Std-Dev-Tra	Off
Phase resolution	100 %	Std-Dev-Time	Off
Slice resolution	100 %	MIP-Sag	Off
Phase partial Fourier	Off	MIP-Cor	Off
Slice partial Fourier	7/8	MIP-Tra	Off
Interpolation	0ff	MIP-Time	Off
interpolation	·····	Save original images	On
PAT mode	GRAPPA	·····	
Accel. factor PE	3	Sequence	
Ref. lines PE	30	Introduction	On
Accel. factor 3D	1	Dimension	3D
Reference scan mode	Integrated		Off
		Elliptical scanning	OII

Asymmetric echo Contrasts Bandwidth Flow comp. Echo spacing	Allowed 1 180 Hz/Px No 7.1 ms
RF pulse type Gradient mode Excitation RF spoiling	Fast Fast Non-sel. On
FFT Scale Factor LIN/PAR Swap Ext. INV Pulse Flip Angle Uniform Image T1 Map Denoise Weighting Acquire FatNavs FatNav resolution FatNav flip angle Train-FatNav delay	100 % Off On 2000 On 150 On 2 mm 3.0 degrees 20 ms

		I PAT mode	GRAPPA
Properties		Accel. factor PE	3
Prio Recon	Off	Ref. lines PE	45
Before measurement		Accel. factor 3D	1
After measurement		Ref. lines 3D	24
Load to viewer	On	Reference scan mode	Separate
Inline movie	Off		
Auto store images	On	Prescan Normalize	Off
Load to stamp segments	Off	Raw filter	Off
Load images to graphic	Off	Elliptical filter	Off
segments	0"	Hamming	Off
Auto open inline display	Off	Geometry	
Start measurement without	On	Multi-slice mode	Interleaved
further preparation	0"	Series	Ascending
Wait for user to start	Off		
Start measurements	single	Special sat.	Parallel R
Routine		Gap	25.0 mm
Slab group 1		Thickness	100 mm
Slabs	1	Table position	Н
Dist. factor	50 %	Table position	0 mm
Position	R47.2 A27.2 H8.8	Inline Composing	Off
Orientation	S > C3.4	Outstand	
Phase enc. dir.	A >> P	System	0#
Rotation	0.00 deg	V32	Off
Phase oversampling	0 %	A32	On
Slice oversampling	9.1 %	Positioning mode	REF
Slices per slab	22	MSMA	S - C - T
FoV read	130.0 mm	Sagittal	R >> L
FoV phase	133.3 %	Coronal	A >> P
Slice thickness	0.80 mm	Transversal	F >> H
TR	2475.80 ms	Save uncombined	Off
TE	24 ms	Coil Combine Mode	Sum of Squares
Averages	1	AutoAlign	Head > Brain
Concatenations	1	Auto Coil Select	Default
Filter	None	China mada	Otondord
Coil elements	A32	Shim mode	Standard
Contrast		Adjust with body coil	Off Off
Perfusion mode	SS-SI VASO	Confirm freq. adjustment Assume Silicone	Off
TI2	700 ms	! Ref. amplitude 1H	225.000 V
TI1	50 ms	Adjustment Tolerance	
TI1s	50 ms	•	Auto
Flip angle	4 deg	Adjust volume ! Position	R45.1 A26.5 H3.3
Fat suppr.	Fat sat.	! Orientation	Sagittal
Fat sat. mode	Strong	! Rotation	90.00 deg
		! A >> P	174 mm
Averaging mode	Long term	!F>>H	152 mm
Reconstruction	Magnitude	!R >> L	39 mm
Measurements	80	į	39 11111
Delay in TR	0 ms	Physio	
Multiple series	Off	1st Signal/Mode	None
Perfusion mode	PICORE Q2T	BOLD	
Inversion time 1	50 ms	Motion correction	Off
Saturation stop time	50 ms	Spatial filter	Off
Inversion time 2	700.0 ms	1 ·	
Flow limit	100 cm/s	Sequence	
Resolution		Introduction	On
Base resolution	162	Dimension	3D
Phase resolution	100 %	Reordering	Linear
Slice resolution	100 %	Contrasts	1
		Bandwidth	1144 Hz/Px
Phase partial Fourier Slice partial Fourier	6/8 Off	Free echo spacing	Off
Interpolation	Off	Echo spacing	0.98 ms
ппетрогацип	OII	EPI factor	216

RF pulse type Gradient mode Excitation RF spoiling	Normal Fast Slab-sel. On
Ampl MAGEC FA ph.skip 4 Robert (the one) MAGEC SS-SI? Maxwell Correction log physio files FFT scale dummy prepscan time z shim RF duration RF BWTP Renzo: Delta TI EFFECTIVE TR PatPartitions EPI phase correction PAT refscan mode FlashRef BaseRes FlashRef BW FlashRef TE FlashRef FA use CAIPI	180 12 in deg 1 On Off On 2.00 3 s 0.00 mT/m*ms 2200 us 25.0 71 ms 59419 ms 24 local Flash 162 100 Hz/px 7000 us 5 deg Off

 $\verb|\USER\RenzoHuber\Lonike_20201118| executed_VASO20201118| VASO_151_0.8mm_sag_FA26| | |\USER\RenzoHuber\Lonike_20201118| | |\USER\RenzoHuber\Lonike_2020118| | | |\USER\RenzoHuber\Lonike_2020118| | |\USER\RenzoHuber\Lonike_2$

TA: 3:18 PAT: 3 Voxel size: 0.8×0.8×0.8 mm Rel. SNR: 1.00 USER: VASO_151

Before measurement	Properties	04	PAT mode Accel. factor PE	GRAPPA 3
After measurement Load to viewer On Inline movie Off Ret. Inies 3D 24 Ret. Inies 3D 25 Ret. In	Prio Recon	Off	Ref. lines PE	45
Load to viewer			Accel. factor 3D	1
Inline movie		On	Ref. lines 3D	
Auto store images			Reference scan mode	Separate
Load insgas to graphic Off Raw filter Off Eliptical filter Off Hamming Off Geometry			Prescan Normalize	Off
Load images to graphic segments Auto open inline display Off		-		_
Segments				
Auto Open inline display Start measurement without further preparation Wait for user to start Start measurements Single Special sat. Parallel R Special sat. Special sat. Parallel R Special sat.		Oll		
Start measurement without further preparation Wait for user to start Start measurements single Special sat. Special sat. Parallel R Gap 25.0 mm Thickness 100 mm Thickness 100 mm Table position 0 mm Table po		Off	Tiamining	Oll
Further preparation Wall for user to start Start measurements Single Series Ascending Special sat. Special sat			Geometry	
Wait for user to start Start measurements Single Senes Ascending		Oll	Multi-slice mode	Interleaved
Start measurements		Off	Series	Ascending
Routine			0	DII-I D
Slab group 1	Start measurements	Sirigle	•	
Salab group	Routine			
Dist. factor	Slab group 1		Inickness	100 mm
Dist. factor	Slabs	1	Table position	Н
Position	Dist. factor	50 %		
Orientation S > C3.4 System Phase onc. dir. A >> P V32 Off Rotation 0.00 deg A32 On Slice oversampling 9.1 % Positioning mode REF Slice oversampling 9.1 % Positioning mode REF Slice sper slab 22 MSMA S - C - T FoV phase 133.3 % Sagittal R >> L Slice thickness 0.80 mm Transversal F >> H TR 2475.80 ms Transversal F >> H TE 24 ms Autoclign Head > Brain Averages 1 Autoclign Head > Brain Concatenations 1 Auto Coil Select Default Filter None Shim mode Standard Contrast A32 Shim mode Standard Contrast Assume Silicone Off Contrast Shim mode Standard Adjust with body coil Off T11 50 ms Position </td <td>Position</td> <td>R47.2 A27.2 H8.8</td> <td></td> <td>-</td>	Position	R47.2 A27.2 H8.8		-
Rotation	Orientation	S > C3.4	1	
Phase oversampling 0 % Silice oversampling 9.1 % Silice partial Fourier 6/8 Silice pascing 0.98 ms Silice partial Fourier 0.1 % Silice pascing 0.98 ms Silice partial Fourier 0.1 % Sili	Phase enc. dir.	A >> P		
Silice oversampling	Rotation	0.00 deg		
Slice oversampling 9.1 % Positioning mode REF	Phase oversampling	0 %	A32	On
Silces per slab		9.1 %	Positioning mode	DEE
FoV read		22		
FoV phase		130.0 mm	_	
Slice thickness				
TR				
TE				
Averages				- · ·
Concatenations				•
Filter		1		
Coil elements		None	Auto Coll Select	Detault
Contrast			Shim mode	Standard
Perfusion mode	1		Adjust with body coil	Off
Perfusion mode				Off
T11				
T11			! Ref. amplitude 1H	220.000 V
Tits				
Filip angle				
Fat suppr. Fat sat. Fat sat. mode Strong ! Orientation 90.00 deg ! Rotation 90.00 deg ! A >> P 174 mm ! F >> H 152 mm ! Reconstruction Magnitude ! F >> H 152 mm ! R >> L 39 mm Delay in TR 0 ms Multiple series Off		•		R45.1 A26.5 H3.3
Rotation 90.00 deg	1 1			
Averaging mode Long term ! A >> P 174 mm Reconstruction Magnitude ! F >> H 152 mm Measurements 80 ! R >> L 39 mm Delay in TR 0 ms Physio Multiple series Off 1st Signal/Mode None Perfusion mode PICORE Q2T BOLD Inversion time 1 50 ms BOLD Inversion time 2 700.0 ms Spatial filter Off Inversion time 2 700.0 ms Sequence Flow limit 100 cm/s Sequence Resolution 162 Reordering Linear Phase resolution 100 % Reordering Linear Slice resolution 100 % Bandwidth 1144 Hz/Px Phase partial Fourier 6/8 Free echo spacing Off Slice partial Fourier Off Echo spacing 0.98 ms	Fat sat. mode	Strong		
Reconstruction Magnitude ! F >> H 152 mm 39 mm 152 mm 18 >> L 39 mm 152 mm 153 mm 152 mm 15	Averaging mode	Long term	! A >> P	•
Measurements80! R >> L39 mmDelay in TR Multiple series0 ms OffPhysioPerfusion mode Inversion time 1 			! F >> H	152 mm
Delay in TR 0 ms Multiple series Off Perfusion mode PICORE Q2T Inversion time 1 50 ms Saturation stop time 50 ms Inversion time 2 700.0 ms Flow limit 100 cm/s Resolution Base resolution 162 Phase resolution 100 % Slice resolution 100 % Phase partial Fourier 6/8 Slice partial Fourier Off Physio Physio None Physio Motion correction Off Spatial filter Off Spatial filter Off Sequence Introduction On Dimension 3D Reordering Linear Contrasts 1 Bandwidth 1144 Hz/Px Free echo spacing Off Echo spacing 0.98 ms		•	! R >> L	39 mm
Multiple series Off Perfusion mode Inversion time 1 Saturation stop time Inversion time 2 Flow limit Resolution Base resolution Phase resolution Slice resolution Phase partial Fourier Soff Introduction Introd			ı	
Perfusion mode PICORE Q2T BOLD Inversion time 1 50 ms Motion correction Off Saturation stop time 50 ms Spatial filter Off Inversion time 2 700.0 ms Flow limit 100 cm/s Sequence Resolution On Dimension 3D Reordering Linear Phase resolution 100 % Contrasts 1 Slice resolution 100 % Bandwidth 1144 Hz/Px Phase partial Fourier 6/8 Free echo spacing Off Slice partial Fourier Off Echo spacing 0.98 ms			•	
Inversion time 1 50 ms Saturation stop time 50 ms Inversion time 2 700.0 ms Flow limit 100 cm/s Resolution Base resolution 162 Phase resolution 100 % Slice resolution 100 % Phase partial Fourier 6/8 Slice partial Fourier Off Introduction On Dimension 3D Reordering Linear Contrasts 1 Bandwidth 1144 Hz/Px Free echo spacing Off Size partial Fourier Off Motion correction Off Spatial filter Off Motion correction Off Spatial filter Off Sequence			1st Signal/Mode	None
Inversion time 1 50 ms Saturation stop time 50 ms Inversion time 2 700.0 ms Flow limit 100 cm/s Resolution Base resolution 162 Phase resolution 100 % Slice resolution 100 % Phase partial Fourier 6/8 Slice partial Fourier Off Introduction On Dimension 3D Reordering Linear Contrasts 1 Bandwidth 1144 Hz/Px Free echo spacing Off Slice partial Fourier Off Motion correction Off Spatial filter Off Spatial filter Off Spatial filter Off Sequence	Perfusion mode	PICORE Q2T	BOLD	
Saturation stop time 50 ms Spatial filter Off Inversion time 2 700.0 ms Flow limit 100 cm/s Sequence Resolution Introduction On Dimension 3D Reordering Linear Phase resolution 100 % Contrasts 1 Slice resolution 100 % Bandwidth 1144 Hz/Px Phase partial Fourier 6/8 Free echo spacing Off Slice partial Fourier Off Echo spacing 0.98 ms	Inversion time 1	50 ms		Off
Inversion time 2 700.0 ms Flow limit 100 cm/s Resolution Base resolution 162 Phase resolution 100 % Slice resolution 100 % Phase partial Fourier 6/8 Slice partial Fourier Off Introduction On Dimension 3D Reordering Linear Contrasts 1 Bandwidth 1144 Hz/Px Free echo spacing Off Echo spacing 0.98 ms	Saturation stop time	50 ms		
Flow limit 100 cm/s Resolution Base resolution 162 Phase resolution 100 % Slice resolution 100 % Phase partial Fourier 6/8 Slice partial Fourier Off Flow limit 100 cm/s Sequence Introduction On Dimension 3D Reordering Linear Contrasts 1 Bandwidth 1144 Hz/Px Free echo spacing Off Echo spacing 0.98 ms		700.0 ms	1 ·	5
Resolution Base resolution Phase resolution Slice resolution Phase partial Fourier Slice partial Fourier Off Dimension Reordering Contrasts Bandwidth Bandwidth Free echo spacing Off Echo spacing One One Slice partial Fourier Off Dimension Reordering Contrasts 1 144 Hz/Px Free echo spacing Off Echo spacing O.98 ms				
Base resolution 162 Phase resolution 100 % Slice resolution 100 % Phase partial Fourier 6/8 Slice partial Fourier Off Reordering Linear Contrasts 1 Bandwidth 1144 Hz/Px Free echo spacing Off Echo spacing 0.98 ms	Pacalistica		Introduction	
Phase resolution 100 % Contrasts 1 Slice resolution 100 % Bandwidth 1144 Hz/Px Phase partial Fourier 6/8 Free echo spacing Off Slice partial Fourier Off Echo spacing 0.98 ms		100		3D
Slice resolution 100 % Phase partial Fourier 6/8 Slice partial Fourier Off Slice partial Fourier Of			Reordering	Linear
Phase partial Fourier 6/8 Free echo spacing Off Slice partial Fourier Off Echo spacing 0.98 ms				1
Slice partial Fourier Off Echo spacing 0.98 ms			Bandwidth	1144 Hz/Px
Slice partial Fourier Off Echo spacing 0.98 ms			Free echo spacing	Off
				0.98 ms
	Interpolation	Off	EDI footor	216
EPI factor 216	1		EFITAGIOI	∠10

RF pulse type Gradient mode Excitation RF spoiling	Normal Fast Slab-sel. On
Ampl MAGEC FA ph.skip 4 Robert (the one) MAGEC SS-SI? Maxwell Correction log physio files FFT scale dummy prepscan time z shim RF duration RF BWTP Renzo: Delta TI EFFECTIVE TR PatPartitions EPI phase correction PAT refscan mode FlashRef BaseRes FlashRef BW FlashRef TE FlashRef FA use CAIPI	150 12 in deg 1 On Off On 2.00 3 s 0.00 mT/m*ms 2200 us 25.0 71 ms 59419 ms 24 local Flash 162 100 Hz/px 7000 us 5 deg Off

\\USER\RenzoHuber\Lonike_20201118\executed_VASO20201118\VASO_151_0.8mm_sag_FA26_no_MAGE
TA: 3:18 PAT: 3 Voxel size: 0.8×0.8×0.8 mm Rel. SNR: 1.00 USER: VASO_151

		PAT mode	GRAPPA
Properties	0"	Accel. factor PE	3
Prio Recon	Off	Ref. lines PE	45
Before measurement		Accel. factor 3D	1
After measurement	0	Ref. lines 3D	24
Load to viewer	On O#	Reference scan mode	Separate
Inline movie	Off	December Normaline	O#
Auto store images	On Off	Prescan Normalize	Off Off
Load to stamp segments	Off	Raw filter	Off Off
Load images to graphic segments	Oli	Elliptical filter Hamming	Off
Auto open inline display	Off	Папппп	Oli
Start measurement without	On	Geometry	
further preparation	Oli	Multi-slice mode	Interleaved
Wait for user to start	Off	Series	Ascending
Start measurements	single	Charial ant	Parallel R
1	Sirigie	Special sat. Gap	25.0 mm
Routine		Thickness	100 mm
Slab group 1		1111CK11ESS	
Slabs	1	Table position	Н
Dist. factor	50 %	Table position	0 mm
Position	R47.2 A27.2 H8.8	Inline Composing	Off
Orientation	S > C3.4	System	
Phase enc. dir.	A >> P	System V32	Off
Rotation	0.00 deg	A32	On
Phase oversampling	0 %	A32	OII
Slice oversampling	9.1 %	Positioning mode	REF
Slices per slab	22	MSMA	S - C - T
FoV read	130.0 mm	Sagittal	R >> L
FoV phase	133.3 %	Coronal	A >> P
Slice thickness	0.80 mm	Transversal	F >> H
TR	2475.80 ms	Save uncombined	Off
TE	24 ms	Coil Combine Mode	Sum of Squares
Averages	1	AutoAlign	Head > Brain
Concatenations	1	Auto Coil Select	Default
Filter	None	Chim made	Ctandard
Coil elements	A32	Shim mode	Standard Off
Contrast		Adjust with body coil Confirm freq. adjustment	Off
Perfusion mode	SS-SI VASO	Assume Silicone	Off
TI2	700 ms	! Ref. amplitude 1H	220.000 V
TI1	50 ms	Adjustment Tolerance	Auto
TI1s	50 ms	Adjust volume	Auto
Flip angle	26 deg	! Position	R45.1 A26.5 H3.3
Fat suppr.	Fat sat.	! Orientation	Sagittal
Fat sat. mode	Strong	! Rotation	90.00 deg
Averaging was als	Language	! A >> P	174 mm
Averaging mode	Long term	! F >> H	152 mm
Reconstruction	Magnitude	! R >> L	39 mm
Measurements	80	1	33 11111
Delay in TR	0 ms	Physio	
Multiple series	Off	1st Signal/Mode	None
Perfusion mode	PICORE Q2T	BOLD	
Inversion time 1	50 ms	Motion correction	Off
Saturation stop time	50 ms	Spatial filter	Off
Inversion time 2	700.0 ms	1 '	3
Flow limit	100 cm/s	Sequence	
Resolution		Introduction	On
Base resolution	162	Dimension	3D
Phase resolution		Reordering	Linear
1 11090 10901011011	100 %		1
Slice resolution	100 % 100 %	Contrasts	
Slice resolution	100 %	Bandwidth	1144 Hz/Px
Phase partial Fourier	100 % 6/8	Bandwidth Free echo spacing	1144 Hz/Px Off
Phase partial Fourier Slice partial Fourier	100 % 6/8 Off	Bandwidth	1144 Hz/Px
Phase partial Fourier	100 % 6/8	Bandwidth Free echo spacing	1144 Hz/Px Off

Ampl 150 MAGEC FA 12 in deg ph.skip 4 Robert (the one) 1 MAGEC SS-SI? Off Maxwell Correction Off log physio files On FFT scale 2.00 dummy prepscan time 3 s z shim 0.00 mT/m*ms RF duration 2200 us RF BWTP 25.0 Renzo: Delta TI 71 ms EFFECTIVE TR 59419 ms PatPartitions 24 EPI phase correction local PAT refscan mode Flash	RF pulse type Gradient mode Excitation RF spoiling	Normal Fast Slab-sel. On
FlashRef BaseRes 162 FlashRef BW 100 Hz/px FlashRef TE 7000 us FlashRef FA 5 deg use CAIPI Off	MAGEC FA ph.skip 4 Robert (the one) MAGEC SS-SI? Maxwell Correction log physio files FFT scale dummy prepscan time z shim RF duration RF BWTP Renzo: Delta TI EFFECTIVE TR PatPartitions EPI phase correction PAT refscan mode FlashRef BaseRes FlashRef BW FlashRef TE FlashRef FA	12 in deg 1 Off Off Off On 2.00 3 s 0.00 mT/m*ms 2200 us 25.0 71 ms 59419 ms 24 local Flash 162 100 Hz/px 7000 us 5 deg

\\USER\RenzoHuber\Lonike_20201118\executed_VASO20201118\VAPER_FAalter_FOV133_chai_sag TA: 3:10 PAT: 3 Voxel size: 0.8×0.8×0.9 mm Rel. SNR: 1.00 USER: VAPER_FAalter_FOV133

		Accel. factor PE	3
Properties		Ref. lines PE	3 45
Prio Recon	Off	Accel. factor 3D	1
Before measurement		Ref. lines 3D	24
After measurement		Reference scan mode	Separate
Load to viewer	On		
Inline movie	Off	Prescan Normalize	Off
Auto store images	On	Raw filter	Off
Load to stamp segments	Off	Elliptical filter	Off
Load images to graphic	Off	Hamming	Off
segments	0"	Geometry	
Auto open inline display	Off	Multi-slice mode	Interleaved
Start measurement without	On	Series	Ascending
further preparation	0"		
Wait for user to start	Off	Special sat.	Parallel R
Start measurements	single	Gap	25.0 mm
Routine		Thickness	100 mm
Slab group 1		Table position	Н
Slabs	1	Table position	0 mm
Dist. factor	50 %	Inline Composing	Off
Position	R47.2 A27.2 H8.8	System	
Orientation	S > C3.4	V32	Off
Phase enc. dir.	A >> P	A32	On
Rotation	0.00 deg		·····
Phase oversampling	0 %	Positioning mode	FIX
Slice oversampling	9.1 %	MSMA	S - C - T
Slices per slab	22	Sagittal	R >> L
FoV read	130.0 mm	Coronal	A >> P
FoV phase	133.3 %	Transversal	F >> H
Slice thickness	0.89 mm	Save uncombined	Off
TR	1795.3 ms	Coil Combine Mode	Sum of Squares
TE	24 ms	AutoAlign	Head > Brain
Averages	1	Auto Coil Select	Default
Concatenations Filter	1 None	Shim mode	Standard
Coil elements	A32	Adjust with body coil	Off
Con elements	A32	Confirm freq. adjustment	Off
Contrast		Assume Silicone	Off
Perfusion mode	Picore Q2TIPS	! Ref. amplitude 1H	250.000 V
TI2	1100 ms	Adjustment Tolerance	Auto
TI1	50 ms	Adjust volume	, idio
TI1s	50 ms	! Position	R45.1 A26.5 H3.3
Flip angle	27.0 deg	! Orientation	Sagittal
Fat suppr.	None	! Rotation	90.00 deg
Averaging mode	Long term	! A >> P	174 mm
Reconstruction	Magnitude	! F >> H	152 mm
Measurements	106	! R >> L	39 mm
Delay in TR	0 ms	ı	
Multiple series	Off	Physio 1st Signal/Mada	None
		1st Signal/Mode	None
Perfusion mode	PICORE Q2T	BOLD	
Inversion time 1	50 ms	Motion correction	Off
Saturation stop time	50 ms	Spatial filter	Off
Inversion time 2	1100.0 ms	1 .	
Flow limit	100 cm/s	Sequence Introduction	On
Resolution		Dimension	3D
Base resolution	162	Reordering	Linear
Phase resolution	100 %	Contrasts	1
Slice resolution	100 %	Bandwidth	1144 Hz/Px
Phase partial Fourier	6/8	Free echo spacing	Off
Slice partial Fourier	Off	Echo spacing	0.98 ms
Interpolation	Off		
PAT mode	CDADDA	EPI factor	216
FATINOGE	GRAPPA	RF pulse type	Normal

Gradient mode Excitation RF spoiling	Fast Slab-sel. On
Read Diff Amp Phase Diff Amp Slice Diff Amp Dante puls # in 1st par Dante puls # in 2nd par MT puls # each DANTE Pulses FA in DANTE TAU in DANTE diff TAU in MT DANTE-RF dur FA diff in DANTE use Ernst angle Maxwell Correction log physio files FFT scale dummy prepscan time z shim RF duration RF BWTP EFFECTIVE TR PatPartitions EPI phase correction PAT refscan mode FlashRef BaseRes FlashRef FA use CAIPI	0.0 mT/m 0.0 mT/m 0.0 mT/m 38 38 0 10.5 degree 200 us 0 us 150 us -3.0 degree Off Off Off 2.00 3 s 0.00 mT/m*ms 2200 us 25.0 72 ms 24 local Flash 162 100 Hz/px 7000 us 5 deg Off

\\USER\RenzoHuber\Lonike_20201118\executed_VASO20201118\VASO_151_0.8mm_sag_FA26_no_MAGE
TA: 8:00 PAT: 3 Voxel size: 0.8×0.8×0.8 mm Rel. SNR: 1.00 USER: VASO_151

Properties		PAT mode	GRAPPA
Prio Recon	Off	Accel. factor PE	3
Before measurement	OII	Ref. lines PE	45
After measurement		Accel. factor 3D	1
Load to viewer	On	Ref. lines 3D	24
Inline movie	Off	Reference scan mode	Separate
Auto store images	On	Prescan Normalize	Off
Load to stamp segments	Off	Raw filter	Off
Load images to graphic	Off	Elliptical filter	Off
segments		Hamming	Off
Auto open inline display	Off		
Start measurement without	On	Geometry	
further preparation		Multi-slice mode	Interleaved
Wait for user to start	Off	Series	Ascending
Start measurements	single	Special sat.	Parallel R
1	3 -	Gap	25.0 mm
Routine		Thickness	100 mm
Slab group 1			
Slabs	1	Table position	Н
Dist. factor	50 %	Table position	0 mm
Position	R47.2 A27.2 H8.8	Inline Composing	Off
Orientation	S > C3.4	System	
Phase enc. dir.	A >> P	V32	Off
Rotation	0.00 deg	A32	On
Phase oversampling	0 %	A32	
Slice oversampling	9.1 %	Positioning mode	REF
Slices per slab	22	MSMA	S - C - T
FoV read	130.0 mm	Sagittal	R >> L
FoV phase	133.3 %	Coronal	A >> P
Slice thickness	0.80 mm	Transversal	F >> H
TR	2475.80 ms	Save uncombined	Off
TE	24 ms	Coil Combine Mode	Sum of Squares
Averages	1	AutoAlign	Head > Brain
Concatenations	1	Auto Coil Select	Default
Filter	None		
Coil elements	A32	Shim mode	Standard
Contrast		Adjust with body coil	Off
Perfusion mode	SS-SI VASO	Confirm freq. adjustment	Off
TI2	700 ms	Assume Silicone	Off
TI1	50 ms	! Ref. amplitude 1H	220.000 V
TI1s	50 ms	Adjustment Tolerance	Auto
Flip angle	26 deg	Adjust volume	D45 1 A26 5 H2 2
Fat suppr.	Fat sat.	! Position	R45.1 A26.5 H3.3
Fat sat. mode	Strong	! Orientation	Sagittal
		! Rotation	90.00 deg 174 mm
Averaging mode	Long term	! A >> P ! F >> H	174 mm 152 mm
Reconstruction	Magnitude		
Measurements	194	! R >> L	39 mm
Delay in TR	0 ms	Physio	
Multiple series	Off	1st Signal/Mode	None
Perfusion mode	PICORE Q2T	BOLD	
Inversion time 1	50 ms		0#
Saturation stop time	50 ms	Motion correction	Off
Inversion time 2	700.0 ms	Spatial filter	Off
Flow limit	100 cm/s	Sequence	
į –	. 55 611,6	Introduction	On
Resolution		Dimension	3D
Base resolution	162	Reordering	Linear
Phase resolution	100 %	Contrasts	1
Slice resolution	100 %	Bandwidth	1144 Hz/Px
Phase partial Fourier	6/8	Free echo spacing	Off
Slice partial Fourier	Off	Echo spacing	0.98 ms
Interpolation	Off		
I		EPI factor	216

RF pulse type Gradient mode Excitation RF spoiling	Normal Fast Slab-sel. On
Ampl MAGEC FA ph.skip 4 Robert (the one) MAGEC SS-SI? Maxwell Correction log physio files FFT scale dummy prepscan time z shim RF duration RF BWTP Renzo: Delta TI EFFECTIVE TR PatPartitions EPI phase correction PAT refscan mode FlashRef BaseRes FlashRef BW FlashRef TE FlashRef FA use CAIPI	150 12 in deg 1 Off Off Off On 2.00 3 s 0.00 mT/m*ms 2200 us 25.0 71 ms 59419 ms 24 local Flash 162 100 Hz/px 7000 us 5 deg Off

\\USER\RenzoHuber\Lonike_20201118\executed_VASO20201118\VASO_151_0.8mm_axial_FA4 TA: 4:22 PAT: 3 Voxel size: 0.8×0.8×0.8 mm Rel. SNR: 1.00 USER: VASO_151

		PAT mode	GRAPPA
Properties		Accel. factor PE	3
Prio Recon	Off	Ref. lines PE	45
Before measurement		Accel. factor 3D	1
After measurement	0-	Ref. lines 3D	24
Load to viewer	On O#	Reference scan mode	Separate
Inline movie	Off	Dragge Name die	O#
Auto store images	On Off	Prescan Normalize	Off
Load to stamp segments	Off	Raw filter	Off Off
Load images to graphic segments	Oli	Elliptical filter Hamming	Off
Auto open inline display	Off	Паппппу	Oii
Start measurement without	On	Geometry	
further preparation	011	Multi-slice mode	Interleaved
Wait for user to start	Off	Series	Ascending
Start measurements	single	Special sat.	Parallel F
1	onigio	Gap	25.0 mm
Routine		Thickness	100 mm
Slab group 1			
Slabs	1	Table position	Н
Dist. factor	50 %	Table position	0 mm
Position	R2.3 A17.4 H9.0	Inline Composing	Off
Orientation	T > C15.8	System	
Phase enc. dir.	A >> P	V32	Off
Rotation	0.00 deg 0 %	A32	On
Phase oversampling Slice oversampling	9.1 %		
Slice oversampling Slices per slab	9.1 %	Positioning mode	REF
FoV read	130.0 mm	MSMA	S - C - T
FoV phase	133.3 %	Sagittal	R >> L
Slice thickness	0.80 mm	Coronal	A >> P
TR	2622.40 ms	Transversal	F >> H
TE	24 ms	Save uncombined	Off
Averages	1	Coil Combine Mode	Sum of Squares
Concatenations	1	AutoAlign	 D-flk
Filter	None	Auto Coil Select	Default
Coil elements	A32	Shim mode	Standard
		Adjust with body coil	Off
Contrast	00.01.14.00	Confirm freq. adjustment	Off
Perfusion mode	SS-SI VASO	Assume Silicone	Off
TI2	700 ms	! Ref. amplitude 1H	225.000 V
TI1	50 ms	Adjustment Tolerance	Auto
TI1s	50 ms	Adjust volume	
Flip angle	4 deg	! Position	L0.0 A22.7 H11.6
Fat suppr.	Fat sat.	! Orientation	T > C14.2
Fat sat. mode	Strong	! Rotation	0.00 deg
Averaging mode	Long term	! R >> L	174 mm
Reconstruction	Magnitude	! A >> P	180 mm
Measurements	100	! F >> H	49 mm
Delay in TR	0 ms	Physio	
Multiple series	Off	1st Signal/Mode	None
Porfusion mode	DICORE O2T	•	
Perfusion mode Inversion time 1	PICORE Q2T 50 ms	BOLD	
Saturation stop time	50 ms	Motion correction	Off
Inversion time 2	700.0 ms	Spatial filter	Off
Flow limit	100 cm/s	Sequence	
!	100 011/0	Introduction	On
Resolution		Dimension	3D
Base resolution	162	Reordering	Linear
Phase resolution	100 %	Contrasts	1
Slice resolution	100 %	Bandwidth	1144 Hz/Px
Phase partial Fourier	6/8	Free echo spacing	Off
Slice partial Fourier	Off	Echo spacing	0.98 ms
Interpolation	Off		246
1		EPI factor	216

RF pulse type Gradient mode Excitation RF spoiling	Normal Fast Slab-sel. On
Ampl MAGEC FA ph.skip 4 Robert (the one) MAGEC SS-SI? Maxwell Correction log physio files FFT scale dummy prepscan time z shim RF duration RF BWTP Renzo: Delta TI EFFECTIVE TR PatPartitions EPI phase correction PAT refscan mode FlashRef BaseRes FlashRef BW FlashRef TE FlashRef FA use CAIPI	180 12 in deg 1 On Off On 2.00 3 s 0.00 mT/m*ms 2000 us 25.0 71 ms 62937 ms 24 local Flash 162 100 Hz/px 7000 us 5 deg Off

\\USER\RenzoHuber\Lonike_20201118\executed_VASO20201118\VASO_151_0.8mm_axial_FA26 TA: 2:11 PAT: 3 Voxel size: 0.8×0.8×0.8 mm Rel. SNR: 1.00 USER: VASO_151

D (*		PAT mode	GRAPPA
Prio Page	0"	Accel. factor PE	3
Prio Recon	Off	Ref. lines PE	45
Before measurement		Accel. factor 3D	1
After measurement Load to viewer	00	Ref. lines 3D	24
Inline movie	On Off	Reference scan mode	Separate
	On	Prescan Normalize	Off
Auto store images Load to stamp segments	Off	Raw filter	Off
Load images to graphic	Off	Elliptical filter	Off
segments	Oli	Hamming	Off
Auto open inline display	Off	Hamming	Oli
Start measurement without	On	Geometry	
further preparation	0.11	Multi-slice mode	Interleaved
Wait for user to start	Off	Series	Ascending
Start measurements	single	Special sat.	Parallel F
1	g	Gap	25.0 mm
Routine		Thickness	100 mm
Slab group 1			
Slabs	1	Table position	Н
Dist. factor	50 %	Table position	0 mm
Position	R2.3 A17.4 H9.0	Inline Composing	Off
Orientation	T > C15.8	System	
Phase enc. dir.	A >> P 0.00 deg	V32	Off
Rotation Phase oversampling	0.00 deg 0 %	A32	On
Slice oversampling	9.1 %		
Slices per slab	22	Positioning mode	REF
FoV read	130.0 mm	MSMA	S - C - T
FoV phase	133.3 %	Sagittal	R >> L
Slice thickness	0.80 mm	Coronal	A >> P
TR	2622.40 ms	Transversal	F >> H
TE	24 ms	Save uncombined	Off
Averages	1	Coil Combine Mode	Sum of Squares
Concatenations	1	AutoAlign Auto Coil Select	Defecult
Filter	None	Auto Coli Select	Default
Coil elements	A32	Shim mode	Standard
_		Adjust with body coil	Off
Contrast	00.017/400	Confirm freq. adjustment	Off
Perfusion mode	SS-SI VASO	Assume Silicone	Off
TI2	700 ms	! Ref. amplitude 1H	225.000 V
TI1	50 ms	Adjustment Tolerance	Auto
TI1s Flip angle	50 ms 26 deg	Adjust volume	
Fat suppr.	Fat sat.	! Position	L0.0 A22.7 H11.6
Fat suppri. Fat sat. mode	Strong	! Orientation	T > C14.2
		! Rotation	0.00 deg
Averaging mode	Long term	! R >> L	174 mm
Reconstruction	Magnitude	! A >> P	180 mm
Measurements	50	! F >> H	49 mm
Delay in TR	0 ms	Physio	
Multiple series	Off	1st Signal/Mode	None
Perfusion mode	PICORE Q2T	•	
Inversion time 1	50 ms	BOLD	
Saturation stop time	50 ms	Motion correction	Off
Inversion time 2	700.0 ms	Spatial filter	Off
Flow limit	100 cm/s	Sequence	
1	100 011//3	Introduction	On
Resolution		Dimension	3D
Base resolution	162	Reordering	Linear
Phase resolution	100 %	Contrasts	1
Slice resolution	100 %	Bandwidth	1144 Hz/Px
Phase partial Fourier	6/8	Free echo spacing	Off
Slice partial Fourier	Off	Echo spacing	0.98 ms
Interpolation	Off		04.0
		EPI factor	216

RF pulse type Gradient mode Excitation RF spoiling	Normal Fast Slab-sel. On
Ampl MAGEC FA ph.skip 4 Robert (the one) MAGEC SS-SI? Maxwell Correction log physio files FFT scale dummy prepscan time z shim RF duration RF BWTP Renzo: Delta TI EFFECTIVE TR PatPartitions EPI phase correction PAT refscan mode FlashRef BaseRes FlashRef BW FlashRef TE FlashRef FA use CAIPI	180 12 in deg 1 On Off On 2.00 3 s 0.00 mT/m*ms 2000 us 25.0 71 ms 62937 ms 24 local Flash 162 100 Hz/px 7000 us 5 deg Off