S1 Table. Imaging parameters. All MRI scans were acquired pre-operatively while the CT scan was acquired post-operatively. T2W and SW images were acquired in both coronal and axial orientations.

Image	Sequence	FOV (mm^3)	Matrix	Voxel resolution (mm^3)	Other parameters	Acquisition time (minutes)
1.5T T1W	3D gradient echo MPRAGE	250x187x176	256x192x176	0.98x0.98x1.0	TR = 1650 ms TI = 1100 ms TE = 3.02 ms Flip angle = 15°	10
7T T1W	3D gradient echo MPRAGE	230x187x153	312x384x256	1.0x1.0x1.0	TR = 3100 ms TI = 1500 ms TE = 3.5 ms Flip angle = 6° Acceleration factor of 2 (GRAPPA) along the phase-encoding direction.	6.5
7T T2W	2D turbo spin echo	200x200x26	512x512x26	0.39x0.39x1.0	TR = 9000 ms TE = 58 ms Flip angle = 150° Acceleration factor of 3 (GRAPPA) along the phase-encoding direction.	7.5
7T SW	3D flow-compensated gradient echo	200x200x48	512x512x60	0.39x0.39x0.8	TR = 28 ms TE = 21 ms Flip angle = 17° Pixel bandwidth = 121 Hz/pixel 6/8 partial Fourier parallel imaging using an acceleration factor of 2 (GRAPPA) along the phase-encoding direction.	4
7T DW	Single refocused 2D single-shot spin echo echo planar imaging	204x204x99	136x136x66	1.5x1.5x1.5	TR = 4896 ms TE = 56 ms Flip angle = 90° Pixel bandwidth = 1671 Hz/pixel Acceleration factor of 3 (GRAPPA).	4.5
CT	-	302x200x302	512x334x512	0.59x0.6x0.59	120 kV 315 mAs Gantry tilt = 0.0°	0.5