

On-line Table 1: Scanner-specific parameters of the 3D T1WI and T2*WI sequences^a

Scanner Parameters	Discovery 750 (3T)	Signa HDx (3T)	Discovery 450 (1.5T)	Signa HD (1.5T)
3D T1WI acquisition parameters				
TR	8.2 ms	12 ms	9.2 ms	10.1 ms
TE	3.2 ms	3.8 ms	4.2 ms	2.0 ms
TI	450 ms	300 ms	450 ms	400 ms
FA	12°	18°	12°	20°
FOV	240 × 240 mm	250 × 175 mm	240 × 180 mm	240 × 240 mm
Acquisition matrix	240 × 240	416 × 256	256 × 224	320 × 224
Section thickness/overlap	1.0/0.0 mm	1.6/0.8 mm	1.6/0.8 mm	1.6/0 mm
Resolution	1.0 × 1.0 × 1.0 mm ³	0.6 × 0.7 × 0.8 mm ³	0.9 × 0.8 × 0.8 mm ³	0.8 × 1.1 × 1.6 mm ³
T2*WI acquisition parameters				
TR	3000 ms	3000 ms	3000 ms	3000 ms
TE	30 ms	30 ms	35 ms	40 ms
FA	90°	75°	75°	60°
FOV	240 × 180 mm	220 × 220 mm	220 × 220 mm	240 × 240 mm
Acquisition matrix	96 × 64	96 × 64	96 × 64	96 × 64
No. of sections	39	39	39	35
Section thickness/gap	2.2/0.3 mm	3.5/0.0 mm	3.5/0.0 mm	3.5/0.0 mm
Resolution	2.5 × 2.8 × 2.2 mm ³	2.3 × 3.4 × 3.5 mm ³	2.3 × 3.4 × 3.5 mm ³	2.5 × 3.8 × 3.5 mm ³

Note:—FA indicates flip angle.

^a All healthy participants were scanned on a 1.5T scanner (Signa HD; GE Healthcare, Milwaukee, Wisconsin). Fifteen patients were scanned on a 1.5T scanner (Discovery 450/Signa HD; GE Healthcare), and 23 patients were scanned on a 3T scanner (Discovery 750/Signa HDx; GE Healthcare).

On-line Table 2: Patient and tumor characteristics and language lateralization

Age (yr)/Sex/ Handedness ^a	Diagnosis/WHO Grade/Tumor Location	Lateralization		ECS Findings
		Cerebrum	Cerebellum	
23/F/L	Oligoastrocytoma/II/right frontoparietal	L	R	Not performed
23/F/R	Astrocytoma/II/right frontal	L	R	Not performed
31/F/L	Oligodendroglioma/II/left temporoparietal	L	R	Language not found
31/F/R	Glioblastoma/IV/left temporoparietal	S	S	Language not found
25/F/L	NA/NA/ left parietal	L	R	Not performed
27/F/R	Astrocytoma/II/left insula, temporal	L	R	Language left
59/F/L	Oligodendroglioma/III/left frontal	S	NA	Language not found
60/F/R	Oligoastrocytoma/II/left frontal	L	R	Language left
52/F/L	Oligodendroglioma/II/right frontal	L	R	Language not found
55/F/R	Oligoastrocytoma/III/right insula, frontoparietotemporal	L	R	Language not found
26/M/L	Astrocytoma/II/right temporal	S	NA	Not performed
29/M/R	Oligodendroglioma/II/right temporal	L	R	Language not found
52/M/L	Astrocytoma/III/right insula, temporoparietal	L	R	Not performed
52/M/R	Glioblastoma/IV/right insula frontotemporal	L	R	Not performed
40/M/L	Oligodendroglioma/III/right insula frontoparietal	R	S	Language not found
44/M/R	Astrocytoma/II/right temporoparietal	R	L	Not performed
27/M/L	Astrocytoma/II/right insula, frontotemporal	S	S	Language right
31/M/R	Astrocytoma/II/right insula, temporoparietal	L	R	Not performed
30/M/L	Oligodendroglioma/II/right frontoparietal	L	R	Not performed
31/M/R	Astrocytoma/II/right insula, frontotemporal	L	R	Language not found
44/M/L	Glioblastoma/IV/right frontoparietal	L	NA	Language not found
46/M/R	Glioblastoma/IV/left temporal	L	R	Language not found
26/M/L	Oligodendroglioma/III/left and right frontal	S	S	Language not found
28/M/R	Astrocytoma/III/left frontoparietal	L	R	Not performed
41/M/L	Oligodendroglioma/II/right insula, frontal	L	R	Not performed
50/M/R	Oligodendroglioma/II/right frontal	L	R	Language not found
14/M/L	Astrocytoma/I/left temporoparietal	L	R	Not performed
25/M/R	Ganglioglioma/I/left temporoparietal	L	R	Language not found
26/M/L	Astrocytoma/II/left insula, frontal	L	R	Language left
28/M/R	Oligoastrocytoma/II/left frontoparietal	L	R	Not performed
36/M/L	Glioblastoma/IV/right temporoparietal	L	R	Not performed
41/F/R	Oligodendroglioma/II/right temporal	L	R	Not performed
48/M/L	Astrocytoma/III/right insula, frontotemporal	L	R	Not performed
59/M/R	Astrocytoma/II/right insula, frontal	L	R	Not performed
43/M/L	Oligoastrocytoma/II/left frontal	S	R	Language not found
41/M/R	Astrocytoma/II/left frontal	L	R	Language left
38/M/L	Astrocytoma/II/right insula, frontotemporal	L	R	Not performed
31/F/R	Oligodendroglioma/III/right frontal	L	NA	Not performed

Note:—L indicates left-lateralized activation; R, right-lateralized activation; S, symmetric; NA, not assessable; WHO, World Health Organization.

^a Handedness was assessed by the neurosurgeon during the presurgical neurological examination; L indicates left-handed; R, right-handed.