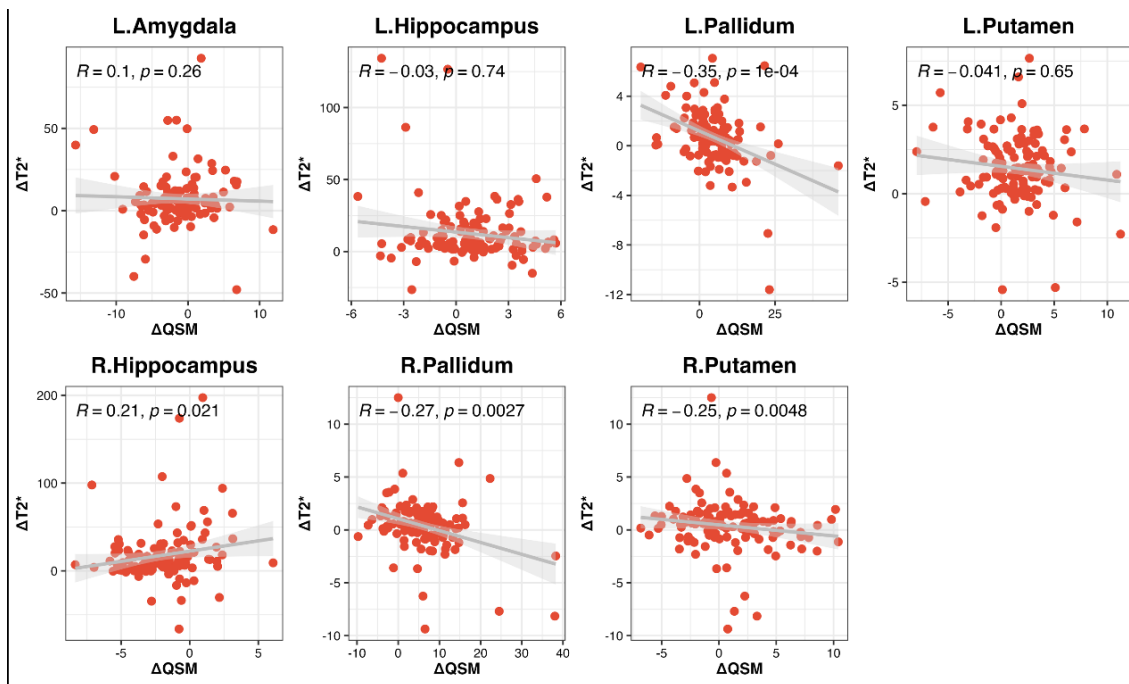


**Table S1** Differences in QSM values of deep gray matter nuclei before and after enhancement

Nuclei	Pre	Post	P Value (Corrected)
L.Accumbens	-15.36	-14.42	0.98
L.Amygdala	-15.61	-14.24	<0.0001
L.Caudate	31.22	30.93	6.52
L.Hippocampus	1.64	0.87	<0.001
L.Pallidum	35.04	30.71	<0.0001
L.Putamen	48.55	47.13	<0.0001
L.Thalamus	-0.3	-0.41	8.46
R.Accumbens	9.68	9.42	9.46
R.Amygdala	-12.18	-11.59	0.57
R.Caudate	23.7	23.21	2.95
R.Hippocampus	2.44	4.41	<0.0001
R. Pallidum	98.99	93.05	<0.0001
R.Putamen	22.45	21.56	0.04
R.Thalamus	-4.1	-4.58	0.98

Both this table and the box plot in *Figure 3* display the differences in QSM values of deep gray matter nuclei before and after enhancement. Paired-t test. L: left; R: right.

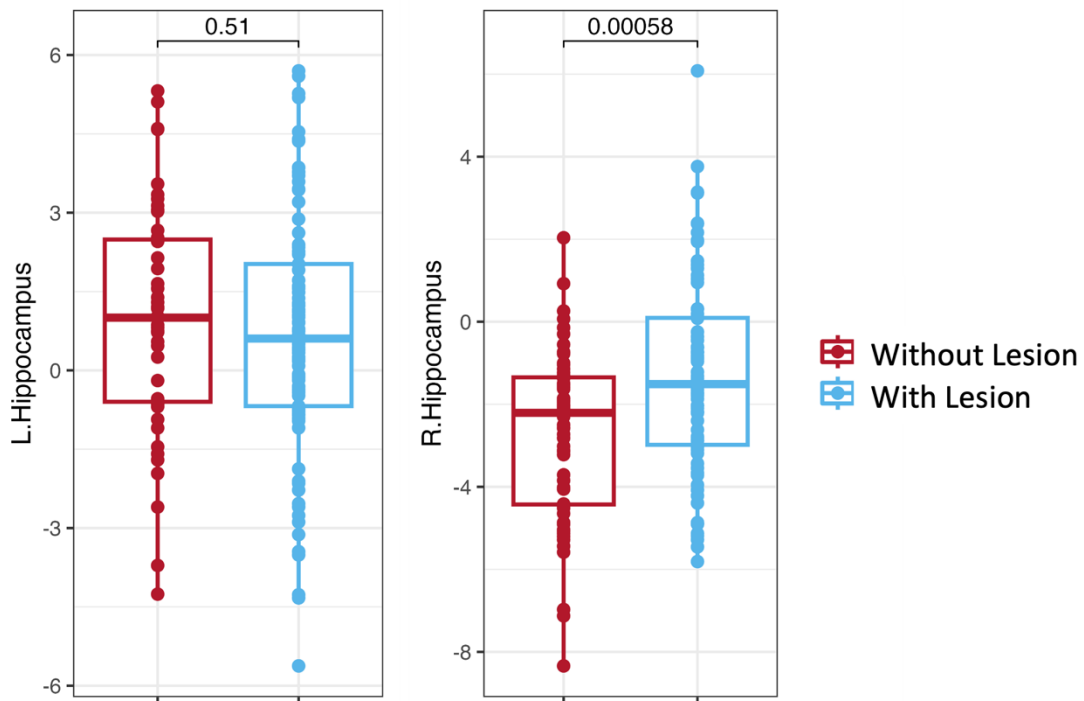


**Figure S1** Correlation between QSM change and T2\* change. Spearman correlation analysis (adjusted for multiple tests).

**Table S2** Correlation between QSM change and T1 change

Nuclei	r	p Value(uncorrected)
L. Accumbens	-0.07	0.39
L. Amygdala	-0.11	0.20
L. Caudate	-0.21	0.02
L. Hippocampus	0.02	0.80
L. Pallidum	0.01	0.89
L. Putamen	-0.06	0.51
L. Thalamus	0.06	0.46
R. Accumbens	0.09	0.31
R. Amygdala	0.06	0.51
R. Caudate	-0.07	0.42
R. Hippocampus	0.02	0.86
R. Pallidum	0.01	0.96
R. Putamen	-0.20	0.02
R. Thalamus	-0.01	0.94

Spearman correlation analysis. L: left; R: right.



**Figure S2** The box plots showing the impact of lesion laterality on hippocampal  $\Delta$ QSM values. Susceptibility values of left and right hippocampus were analyzed separately for the presence or absence of lesions in the corresponding hemisphere.

**Table S3** Relationship between QSM values of deep gray matter nuclei and the number of gadobutrol injections

Part	Estimate	Std. Error	p Value
L. Accumbens	0.76	0.98	0.43
L. Amygdala	1.00	0.58	0.09
L. Caudate	-1.69	1.00	0.09
L. Hippocampus	0.27	0.34	0.44
L. Pallidum	1.07	1.75	0.54
L. Putamen	-0.42	1.04	0.69
L. Thalamus	-0.65	0.34	0.06
R. Accumbens	-1.28	1.31	0.33
R. Amygdala	-0.03	0.57	0.96
R. Caudate	-0.32	0.84	0.70
R. Hippocampus	0.56	0.34	0.11
R. Pallidum	-0.14	2.56	0.96
R. Putamen	-0.001	0.82	1.00
R. Thalamus	0.03	0.47	0.94

L: left; R: right.