

Supplementary Materials:

Fig. S1. CSF contrast enhancement after intrathecal gadobutrol.

Fig. S2. Segmentation of MR images.

Fig. S3. Alignment of subsequent MR images.

Fig. S4. Reference region of interest placed within the superior sagittal sinus above the confluence.

Table S1. Demographic and clinical information about the REF and iNPH cohorts at the time MRI.

Table S2. Percentage change in normalized T1 signals at various time points after intrathecal gadobutrol in REF individuals.

Table S3. Percentage change in normalized T1 signals at various time points after intrathecal gadobutrol in iNPH individuals

Table S4. Percentage change in normalized T1 signals at various time points after intrathecal gadobutrol in REF and iNPH individuals.

Table S5. Differences in normalized T1 signals before and 4 weeks after intrathecal gadobutrol

Movie S1. Brain-wide CSF tracer enrichment in a REF subject. A color-coded coronal T1 weighted MRI of a REF individual illustrates changes in normalized T1 signals after intrathecal gadobutrol (minutes after gadobutrol displayed to the lower left). The CSF tracer enrichment within the CSF is not shown.

Movie S2. Brain-wide CSF tracer enrichment in a iNPH subject. A color-coded coronal T1 weighted MRI of a RiNPH individual illustrates changes in normalized T1 signals after intrathecal gadobutrol (minutes after gadobutrol displayed to the left). The CSF tracer enrichment within the CSF is not shown.

Movie S3. CSF tracer distribution following intrathecal administration. A 3D picture showing distribution of intrathecally administered gadobutrol. The time (hours) after intrathecal gadobutrol is shown upper left.

Fig. S1

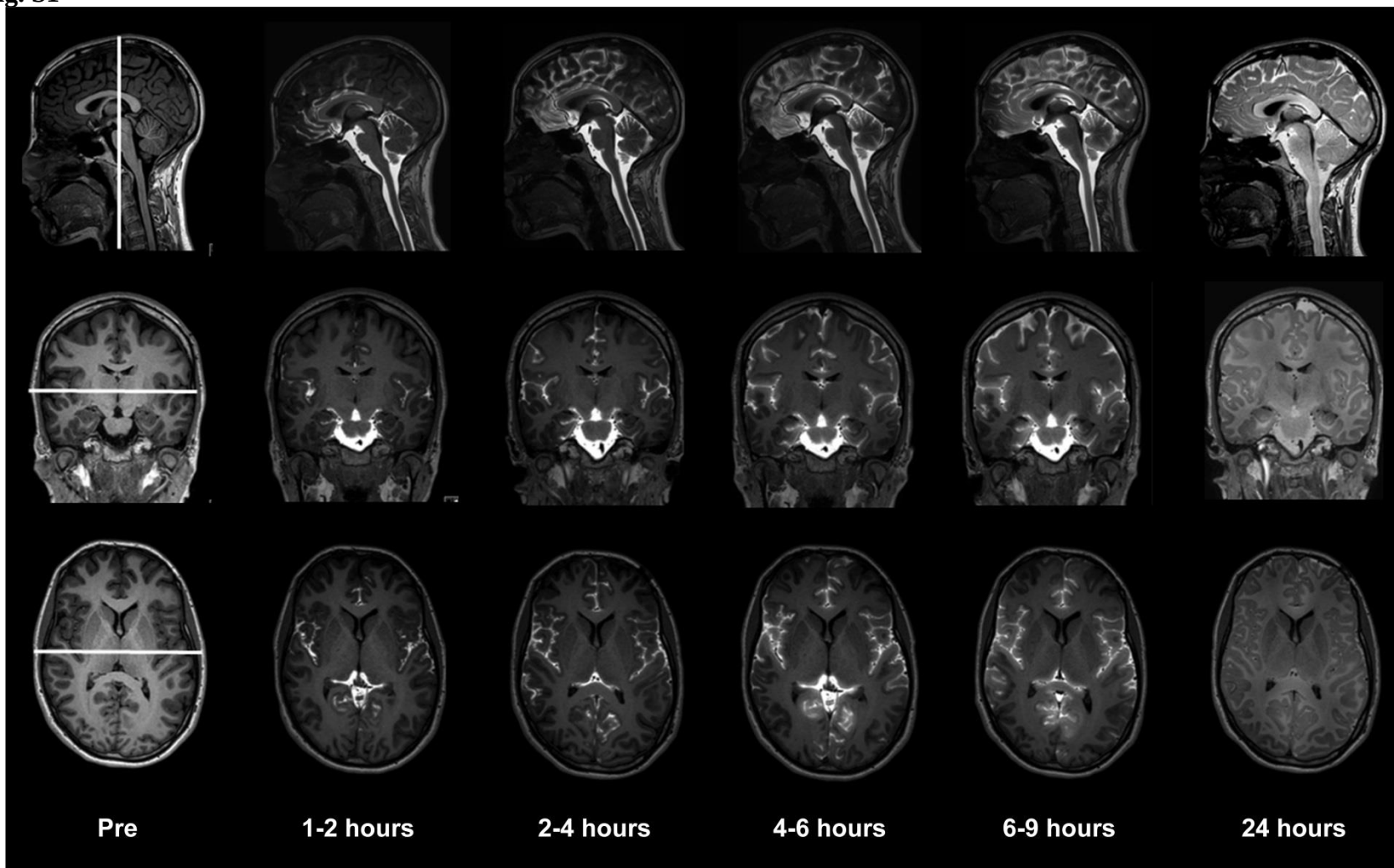


Fig S1. CSF contrast enhancement after intrathecal gadobutrol. Reconstructed T1 weighted images in sagittal (first row), coronal (second row) and axial (third row) planes from MRI before contrast agent administration (Pre) and at five imaging time points (1-2, 2-4, 4-6, 6-9 and 24 hours), showing enrichment of contrast within subarachnoid spaces and change of the parenchymal T1 signal in a REF individual.

Fig. S2

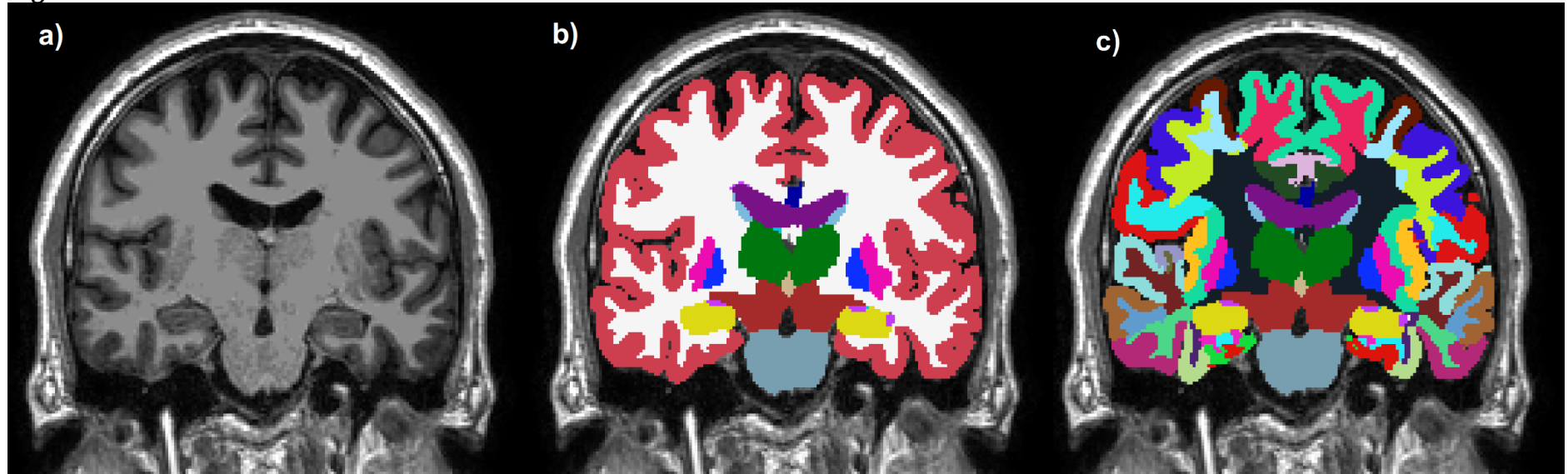


Fig. S2. Segmentation of MR images. The left panel (a) displays the MRI T1 weighted image after Freesurfer procedure, the middle panel (b) shows the segmentation, and the right panel (c) shows the parcellation of the cortex and the white matter.

Fig. S3

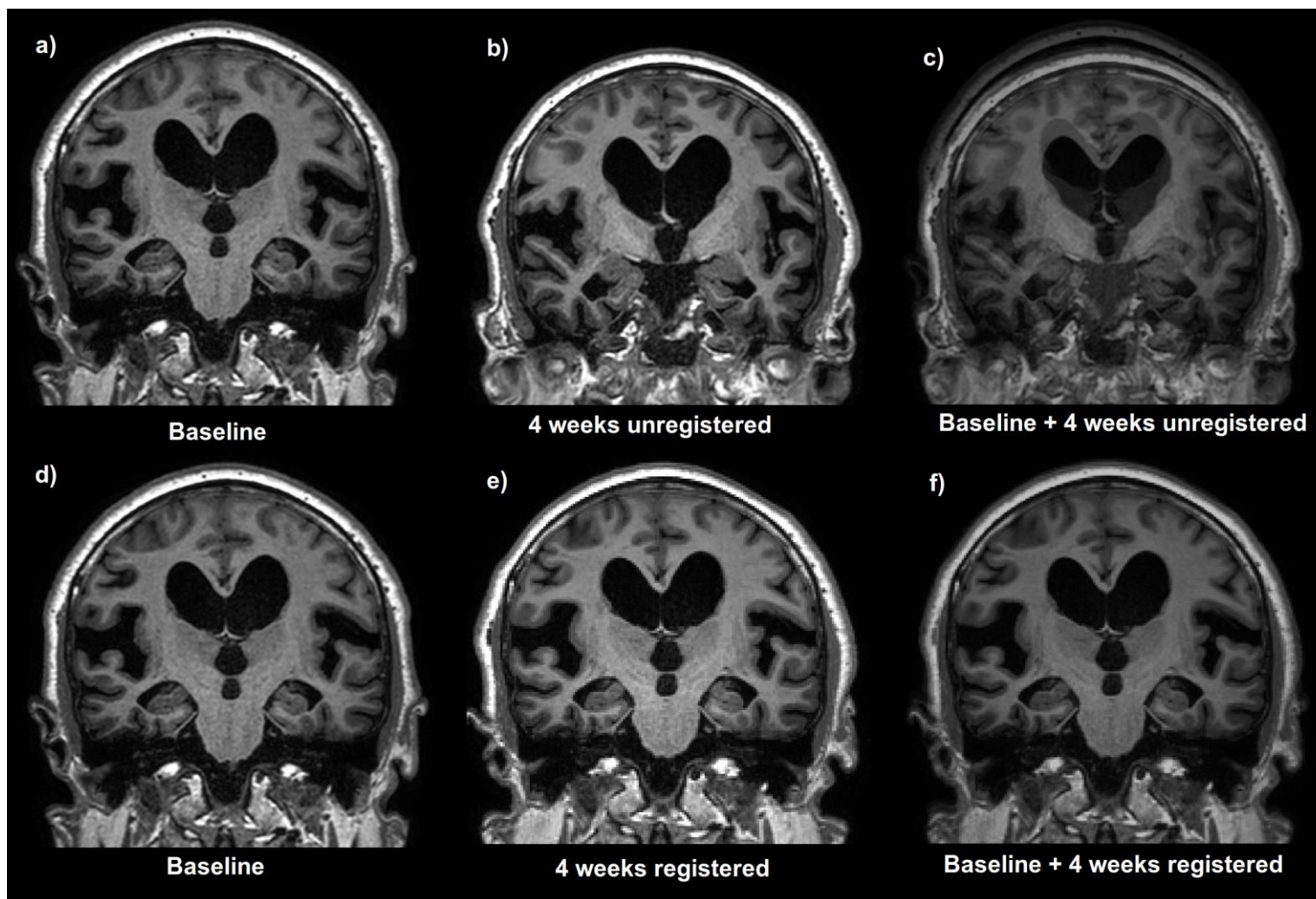


Fig. S3. Alignment of MR images. The figure displays different images of the same coronal slice, including images at baseline (a, d), and unaligned MRI after 4 weeks (b, e). In (c) is shown the combination of the baseline (a) and unaligned image after 4 weeks (b), while (f) shows the combination of the baseline (d) and aligned MRI after 4 weeks (e).

Fig. S4.

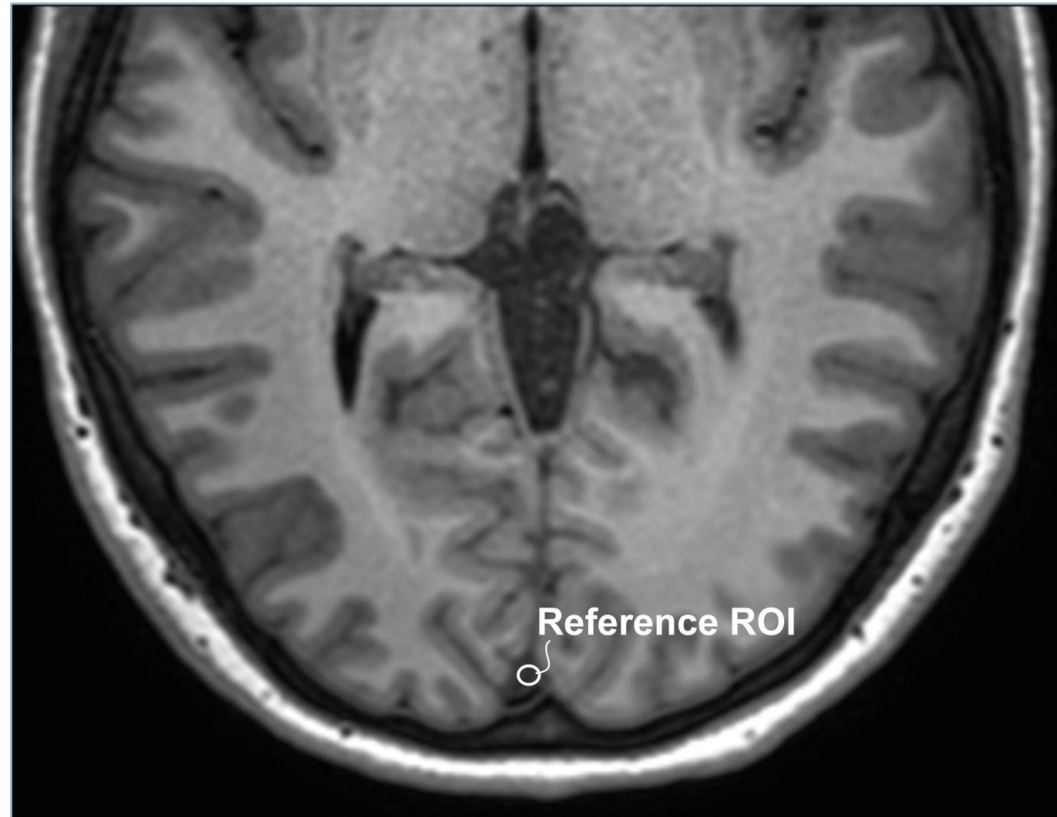


Fig. S4. Reference region of interest placed within the superior sagittal sinus above the confluence. The T1 signal of this reference ROI measured 33 signal units. To create normalized T1 signals, the measured signal units within the other regions of interest were divided by the measured signal unit within the reference ROI.

Supplementary Tables 1-5

Brain-wide glymphatic enhancement and clearance in humans assessed with MRI

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Table S1. Demographic and clinical information about the REF and iNPH cohorts at the time MRI

	REF	iNPH	Significance
<i>N</i>	8	9	
<i>Sex (F/M)</i>	6/2	1/8	=0.008
<i>Age (years)</i>	38.4 ± 17.3	68.3 ± 9.5	<0.001
<i>Symptoms reported by patient and/or family</i>			
Gait disturbance	2 (25%)	9 (100%)	=0.001
Urinary incontinence	0 (0%)	6 (67%)	=0.004
Cognitive impairment	0 (0%)	8 (89%)	<0.001
Headache	5 (63%)	1 (11%)	=0.03
Dizziness	2 (25%)	3 (33%)	ns
Lethargy	0 (0%)	1 (11%)	ns
Duration of symptoms (months)	42.4 ± 40.6	21.3 ± 10.4	ns
NPH-score	15 (14-15)	13 (11-13)	<0.001
<i>Tests of cognitive function</i>			
Mini-mental state (MMS)	-	28 (23-28)	-
Montreal Cognitive Assessment (MoCA)	-	23 (20-25)	-

Categorical data presented as numbers; continuous data presented as mean ± standard deviation. Significant differences between groups were determined by Pearson Chi-square test for categorical data and by independent samples t-test for continuous data. iNPH: Idiopathic normal pressure hydrocephalus. REF: Reference patients.

Table S2. Percentage change in normalized T1 signals at various time points after intrathecal gadobutrol in REF individuals

SegID	StructName	Time after intrathecal gadobutrol																		*Sign			
		1.5 - 2 h			2 - 4 h			4-6 h			6-9 h			24 h			48 h				4 weeks		
<i>Some cortical grey matter regions</i>																							
1002	ctx-lh-caudalanteriorcingulate	-3	±	8	-2	±	15	32	±	54	64	±	62	63	±	60	70			-2	±	19	<0.001
1003	ctx-lh-caudalmiddlefrontal	-3	±	9	-5	±	16	6	±	32	2	±	30	43	±	65	36			-6	±	20	<0.001
1005	ctx-lh-cuneus	1	±	8	-1	±	13	13	±	42	34	±	51	47	±	55	85			-5	±	19	0.088
1006	ctx-lh-entorhinal	1	±	6	6	±	16	58	±	61	87	±	75	59	±	50	52			-6	±	17	0.001
1032	ctx-lh-frontalpole	0	±	10	-4	±	13	10	±	19	32	±	41	94	±	78	106			0	±	20	<0.001
1007	ctx-lh-fusiform	1	±	8	1	±	16	21	±	41	35	±	55	41	±	51	51			-7	±	18	0.151
1008	ctx-lh-inferiorparietal	-3	±	7	-6	±	14	1	±	24	1	±	19	32	±	49	38			-6	±	19	0.035
1009	ctx-lh-inferiortemporal	-2	±	8	-4	±	16	11	±	36	8	±	36	34	±	52	34			-8	±	18	0.034
1035	ctx-lh-insula	-1	±	8	4	±	20	56	±	74	88	±	91	62	±	62	60			-6	±	18	0.007
1010	ctx-lh-isthmuscingulate	-1	±	7	-1	±	14	21	±	40	36	±	46	40	±	43	64			-6	±	18	0.021
1011	ctx-lh-lateraloccipital	2	±	5	-2	±	12	-1	±	20	1	±	15	19	±	29	32			-4	±	20	0.223
1012	ctx-lh-lateralorbitofrontal	-2	±	6	1	±	14	44	±	56	80	±	63	68	±	58	62			-5	±	18	<0.001
1013	ctx-lh-lingual	3	±	7	2	±	14	14	±	28	31	±	40	42	±	47	62			-5	±	19	0.100
1014	ctx-lh-medialorbitofrontal	-2	±	4	6	±	18	68	±	78	121	±	92	79	±	66	76			-4	±	17	<0.001
1015	ctx-lh-middletemporal	-4	±	9	-5	±	16	12	±	41	12	±	40	50	±	67	69			-8	±	17	0.025
1017	ctx-lh-paracentral	-4	±	8	-5	±	14	11	±	40	16	±	44	43	±	46	27			-5	±	19	<0.001
1016	ctx-lh-parahippocampal	1	±	7	17	±	37	77	±	92	97	±	100	54	±	52	45			-6	±	18	<0.001
1018	ctx-lh-parsopercularis	-4	±	8	-4	±	16	25	±	51	36	±	59	58	±	62	60			-6	±	18	0.038
1019	ctx-lh-parsorbitalis	-2	±	7	-4	±	14	18	±	34	38	±	38	73	±	65	68			-3	±	21	<0.001
1020	ctx-lh-parstriangularis	-4	±	9	-5	±	15	10	±	32	19	±	34	59	±	57	68			-5	±	20	0.007
1021	ctx-lh-pericalcarine	2	±	5	-1	±	13	15	±	45	37	±	54	40	±	47	64			-5	±	19	0.084
1022	ctx-lh-postcentral	-6	±	9	-5	±	16	18	±	47	23	±	52	49	±	64	56			-8	±	18	<0.001
1023	ctx-lh-posteriorcingulate	-3	±	6	-4	±	14	20	±	53	32	±	57	49	±	48	54			-6	±	18	<0.001
1024	ctx-lh-precentral	-5	±	8	-5	±	16	15	±	41	18	±	45	45	±	60	50			-6	±	19	<0.001
1025	ctx-lh-precuneus	-2	±	7	-4	±	13	10	±	34	17	±	40	40	±	46	67			-6	±	19	0.001
1026	ctx-lh-rostralanteriorcingulate	-4	±	7	3	±	17	61	±	82	105	±	90	70	±	66	71			-4	±	17	<0.001
1027	ctx-lh-rostralmiddlefrontal	-3	±	9	-5	±	15	1	±	22	2	±	13	53	±	53	56			-3	±	21	<0.001
1028	ctx-lh-superiorfrontal	-4	±	8	-5	±	13	11	±	35	16	±	42	56	±	54	53			-4	±	19	<0.001
1029	ctx-lh-superiorparietal	-2	±	8	-6	±	14	3	±	24	5	±	22	37	±	57	35			-5	±	19	<0.001
1030	ctx-lh-superiortemporal	-4	±	9	-2	±	17	34	±	61	56	±	68	63	±	71	74			-7	±	18	0.056
1031	ctx-lh-supramarginal	-6	±	8	-6	±	16	15	±	44	22	±	47	51	±	66	64			-9	±	18	0.083
1033	ctx-lh-temporalpole	-1	±	6	3	±	15	44	±	58	86	±	73	72	±	64	82			-6	±	19	0.010
1034	ctx-lh-transversetemporal	-3	±	9	2	±	22	49	±	71	75	±	86	47	±	55	60			-8	±	17	0.001
2002	ctx-rh-caudalanteriorcingulate	-5	±	8	-3	±	14	28	±	50	68	±	66	63	±	60	70			-4	±	18	<0.001
2003	ctx-rh-	-6	±	7	-7	±	14	7	±	35	7	±	44	44	±	67	68			-6	±	17	<0.001

	caudalmiddlefrontal																	
2005	ctx-rh-cuneus	2	±	8	0	±	14	9	±	30	22	±	36	46	±	55	94	-4 ± 19 0.001
2006	ctx-rh-entorhinal	-2	±	7	5	±	17	63	±	62	97	±	75	59	±	52	46	-8 ± 16 <0.001
2032	ctx-rh-frontalpole	-2	±	7	-3	±	13	7	±	17	28	±	25	93	±	75	128	0 ± 21 0.088
2007	ctx-rh-fusiform	-3	±	6	-1	±	17	24	±	44	37	±	57	42	±	52	43	-9 ± 15 0.001
2008	ctx-rh-inferiorparietal	-3	±	7	-6	±	13	3	±	28	1	±	29	28	±	49	31	-8 ± 16 <0.001
2009	ctx-rh-inferiortemporal	-6	±	7	-6	±	14	5	±	31	6	±	28	32	±	50	35	-10 ± 16 0.091
2035	ctx-rh-insula	-5	±	7	2	±	22	54	±	72	91	±	92	57	±	61	47	-7 ± 16 0.004
2010	ctx-rh-isthmuscingulate	0	±	7	1	±	16	32	±	48	57	±	66	45	±	50	80	-6 ± 18 0.013
2011	ctx-rh-lateraloccipital	1	±	5	-2	±	12	-2	±	20	1	±	15	17	±	26	27	-7 ± 17 0.007
2012	ctx-rh-lateralorbitofrontal	-4	±	6	0	±	16	51	±	59	97	±	72	67	±	56	71	-6 ± 16 0.008
2013	ctx-rh-lingual	2	±	6	4	±	18	17	±	32	42	±	56	44	±	56	69	-5 ± 17 0.151
2014	ctx-rh-medialorbitofrontal	-3	±	5	4	±	17	63	±	71	123	±	89	79	±	66	82	-5 ± 16 <0.001
2015	ctx-rh-midddletemporal	-8	±	6	-8	±	13	6	±	34	9	±	38	42	±	65	54	-9 ± 17 0.091
2017	ctx-rh-paracentral	-4	±	6	-7	±	13	9	±	37	13	±	40	41	±	45	33	-6 ± 18 <0.001
2016	ctx-rh-parahippocampal	-1	±	8	21	±	52	82	±	100	104	±	105	55	±	54	40	-8 ± 17 0.003
2018	ctx-rh-parsopercularis	-8	±	7	-6	±	16	31	±	69	44	±	78	55	±	66	66	-8 ± 16 <0.001
2019	ctx-rh-parsorbitalis	-6	±	6	-8	±	12	24	±	48	46	±	59	70	±	64	81	-5 ± 18 0.008
2020	ctx-rh-parstriangularis	-7	±	6	-7	±	14	22	±	51	41	±	63	62	±	64	74	-7 ± 17 0.112
2021	ctx-rh-pericalcarine	2	±	5	0	±	14	14	±	41	26	±	46	40	±	51	82	-6 ± 18 <0.001
2022	ctx-rh-postcentral	-7	±	7	-6	±	14	24	±	64	35	±	72	52	±	70	66	-8 ± 17 0.038
2023	ctx-rh-posteriorcingulate	-3	±	7	-5	±	13	16	±	41	29	±	47	52	±	53	62	-4 ± 19 0.232
2024	ctx-rh-precentral	-7	±	7	-6	±	14	18	±	51	23	±	61	46	±	63	60	-8 ± 16 0.005
2025	ctx-rh-precuneus	-2	±	7	-4	±	13	10	±	34	20	±	38	45	±	51	84	-6 ± 18 <0.001
2026	ctx-rh-rostralanteriorcingulate	-5	±	7	1	±	17	60	±	77	103	±	92	67	±	61	73	-5 ± 16 <0.001
2027	ctx-rh-rostralmiddlefrontal	-6	±	7	-7	±	14	1	±	21	2	±	17	57	±	53	91	-3 ± 18 0.014
2028	ctx-rh-superiorfrontal	-4	±	7	-5	±	14	5	±	25	11	±	30	54	±	55	68	-3 ± 19 <0.001
2029	ctx-rh-superiorparietal	-3	±	7	-5	±	14	5	±	28	7	±	32	38	±	53	27	-5 ± 19 <0.001
2030	ctx-rh-superiortemporal	-7	±	8	-4	±	16	34	±	67	61	±	82	57	±	71	57	-8 ± 16 <0.001
2031	ctx-rh-supramarginal	-7	±	7	-6	±	14	20	±	53	32	±	63	53	±	72	73	-9 ± 16 0.007
2033	ctx-rh-temporalpole	-1	±	8	1	±	15	46	±	52	92	±	75	76	±	63	63	-5 ± 19 0.144
2034	ctx-rh-transversetemporal	-5	±	8	1	±	20	47	±	74	76	±	87	43	±	54	40	-9 ± 17 0.125
Some white matter regions																		
3002	wm-lh-caudalanteriorcingulate	-3	±	10	-6	±	14	0	±	24	-3	±	14	12	±	22	32	-7 ± 18 0.005
3003	wm-lh-caudalmiddlefrontal	-3	±	9	-6	±	15	-1	±	25	-7	±	12	6	±	21	16	-7 ± 19 0.029
3005	wm-lh-cuneus	0	±	9	-5	±	13	-2	±	20	0	±	15	21	±	31	42	-6 ± 19 0.091
3006	wm-lh-entorhinal	-2	±	8	-5	±	14	2	±	24	1	±	17	27	±	33	38	-8 ± 19 0.016
3032	wm-lh-frontalpole	-2	±	10	-6	±	14	-5	±	19	-2	±	8	39	±	39	51	-4 ± 19 <0.001

3007	wm-lh-fusiform	-1	±	8	-5	±	14	0	±	23	-3	±	17	11	±	24	30	-8	±	18	0.016
3008	wm-lh-inferiorparietal	-2	±	8	-6	±	14	-2	±	21	-6	±	12	7	±	20	25	-8	±	19	0.025
3009	wm-lh-inferiortemporal	-3	±	8	-5	±	14	1	±	25	-5	±	15	10	±	26	26	-8	±	18	0.008
3035	wm-lh-insula	-2	±	8	-6	±	14	1	±	25	-1	±	17	13	±	24	35	-7	±	18	0.038
3010	wm-lh-isthmuscingulate	-2	±	9	-5	±	14	1	±	23	0	±	19	12	±	23	36	-8	±	18	0.026
3011	wm-lh-lateraloccipital	1	±	7	-3	±	13	-3	±	20	-4	±	11	8	±	17	24	-6	±	19	0.020
3012	wm-lh-lateralorbitofrontal	-2	±	9	-6	±	14	0	±	23	0	±	15	21	±	27	42	-6	±	19	0.004
3013	wm-lh-lingual	0	±	8	-4	±	13	0	±	21	0	±	17	17	±	27	34	-7	±	18	0.045
3014	wm-lh-medialorbitofrontal	-3	±	8	-6	±	13	2	±	22	6	±	17	27	±	31	46	-6	±	19	0.005
3015	wm-lh-middletemporal	-3	±	9	-6	±	15	0	±	26	-6	±	16	14	±	30	37	-8	±	18	0.017
3017	wm-lh-paracentral	-3	±	8	-6	±	14	-1	±	24	-5	±	13	11	±	23	19	-7	±	19	0.023
3016	wm-lh-parahippocampal	-1	±	10	-4	±	15	9	±	29	14	±	33	32	±	36	34	-8	±	18	0.014
3018	wm-lh-parsopercularis	-3	±	9	-6	±	15	-1	±	25	-4	±	14	17	±	28	30	-7	±	19	0.012
3019	wm-lh-parsorbitalis	-2	±	10	-6	±	15	-1	±	24	-1	±	15	31	±	36	43	-5	±	20	0.006
3020	wm-lh-parstriangularis	-2	±	10	-6	±	15	-2	±	23	-4	±	12	16	±	25	34	-6	±	19	0.003
3021	wm-lh-pericalcarine	0	±	8	-4	±	13	-1	±	20	0	±	15	17	±	27	39	-6	±	18	0.025
3022	wm-lh-postcentral	-4	±	8	-7	±	15	0	±	25	-4	±	16	18	±	34	26	-8	±	19	0.023
3023	wm-lh-posteriorcingulate	-2	±	9	-6	±	14	1	±	25	-3	±	15	11	±	21	28	-8	±	18	0.006
3024	wm-lh-precentral	-4	±	8	-7	±	14	-1	±	25	-6	±	13	10	±	24	19	-8	±	19	0.030
3025	wm-lh-precuneus	-1	±	8	-5	±	13	-1	±	22	-3	±	14	12	±	23	37	-7	±	19	0.035
3026	wm-lh-rostralanteriorcingulate	-3	±	10	-6	±	14	0	±	23	0	±	16	17	±	25	39	-7	±	19	0.004
3027	wm-lh-rostralmiddlefrontal	-2	±	9	-6	±	14	-2	±	22	-6	±	11	10	±	20	22	-5	±	20	0.005
3028	wm-lh-superiorfrontal	-3	±	9	-6	±	14	-2	±	23	-5	±	12	12	±	23	25	-6	±	19	0.002
3029	wm-lh-superiorparietal	-2	±	9	-6	±	14	-2	±	22	-5	±	11	9	±	23	23	-7	±	19	0.049
3030	wm-lh-superiortemporal	-3	±	9	-6	±	15	1	±	25	-2	±	18	18	±	31	41	-8	±	19	0.026
3031	wm-lh-supramarginal	-3	±	8	-6	±	14	0	±	25	-5	±	14	14	±	28	32	-8	±	19	0.037
3033	wm-lh-temporalpole	-2	±	8	-5	±	14	2	±	23	6	±	20	43	±	45	53	-7	±	19	0.031
3034	wm-lh-transversetemporal	-3	±	9	-6	±	15	4	±	28	6	±	27	23	±	34	37	-8	±	19	0.077
4001	wm-rh-bankssts	-4	±	9	-6	±	14	-1	±	25	-7	±	14	6	±	23	17	-9	±	18	0.026
4002	wm-rh-caudalanteriorcingulate	-3	±	9	-6	±	14	0	±	24	-2	±	15	13	±	21	33	-8	±	18	0.003
4003	wm-rh-caudalmiddlefrontal	-4	±	8	-6	±	14	-1	±	24	-6	±	13	6	±	23	21	-8	±	18	0.046
4005	wm-rh-cuneus	0	±	9	-5	±	13	-2	±	20	-1	±	14	21	±	33	40	-6	±	19	0.108
4006	wm-rh-entorhinal	-3	±	8	-6	±	13	2	±	26	2	±	19	27	±	34	36	-9	±	17	0.003
4032	wm-rh-frontalpole	-3	±	8	-7	±	13	-5	±	17	-3	±	9	35	±	32	61	-4	±	20	<0.001
4007	wm-rh-fusiform	-3	±	8	-6	±	14	0	±	25	-2	±	18	11	±	25	25	-9	±	17	0.025
4008	wm-rh-inferiorparietal	-2	±	9	-7	±	14	-2	±	23	-6	±	13	6	±	21	13	-8	±	18	0.031
4009	wm-rh-inferiortemporal	-4	±	8	-7	±	14	-1	±	26	-6	±	16	8	±	25	19	-9	±	18	0.004
4035	wm-rh-insula	-4	±	8	-7	±	14	1	±	26	-2	±	17	11	±	24	30	-8	±	18	0.024

4010	wm-rh-isthmuscingulate	-2	±	9	-5	±	14	2	±	24	1	±	21	14	±	24	31	-7	±	18	0.020
4011	wm-rh-lateraloccipital	0	±	7	-5	±	13	-4	±	21	-5	±	11	6	±	18	15	-7	±	18	0.019
4012	wm-rh-lateralorbitofrontal	-5	±	8	-7	±	14	0	±	23	0	±	15	19	±	25	43	-8	±	18	0.001
4013	wm-rh-lingual	0	±	8	-4	±	13	1	±	21	3	±	21	19	±	32	35	-7	±	18	0.108
4014	wm-rh-medialorbitofrontal	-4	±	8	-7	±	13	1	±	22	5	±	16	26	±	30	48	-7	±	18	0.006
4015	wm-rh-middletemporal	-5	±	9	-7	±	14	-1	±	27	-7	±	16	11	±	30	19	-9	±	18	0.002
4017	wm-rh-paracentral	-3	±	8	-7	±	14	-1	±	23	-6	±	13	8	±	20	17	-7	±	18	0.005
4016	wm-rh-parahippocampal	-3	±	9	-5	±	15	11	±	31	15	±	37	30	±	37	26	-9	±	18	0.022
4018	wm-rh-parsopercularis	-5	±	8	-7	±	14	0	±	25	-5	±	16	12	±	27	34	-9	±	18	0.007
4019	wm-rh-parsorbitalis	-4	±	7	-8	±	13	0	±	23	-1	±	15	26	±	32	44	-7	±	18	0.003
4020	wm-rh-parstriangularis	-5	±	7	-8	±	14	0	±	24	-4	±	14	15	±	27	37	-8	±	18	0.004
4021	wm-rh-pericalcarine	-1	±	8	-5	±	13	-2	±	20	-1	±	15	16	±	26	40	-7	±	18	0.045
4022	wm-rh-postcentral	-5	±	8	-7	±	14	1	±	26	-2	±	19	18	±	35	27	-8	±	18	0.014
4023	wm-rh-posteriorcingulate	-3	±	9	-6	±	14	1	±	24	-3	±	15	11	±	22	27	-8	±	18	0.003
4024	wm-rh-precentral	-4	±	8	-7	±	14	0	±	25	-6	±	14	9	±	25	19	-8	±	18	0.017
4025	wm-rh-precuneus	-2	±	9	-6	±	14	-1	±	22	-3	±	13	13	±	24	33	-7	±	18	0.019
4026	wm-rh-rostralanteriorcingulate	-4	±	9	-7	±	13	-1	±	23	0	±	16	16	±	21	44	-7	±	18	0.001
4027	wm-rh-rostralmiddlefrontal	-4	±	8	-6	±	14	-2	±	22	-6	±	11	9	±	20	32	-6	±	19	0.002
4028	wm-rh-superiorfrontal	-4	±	9	-6	±	14	-3	±	22	-5	±	12	10	±	22	29	-7	±	18	0.008
4029	wm-rh-superiorparietal	-2	±	9	-6	±	14	-1	±	22	-5	±	11	9	±	23	16	-7	±	18	0.037
4030	wm-rh-superiortemporal	-5	±	9	-7	±	14	1	±	27	-1	±	20	20	±	35	28	-9	±	18	0.004
4031	wm-rh-supramarginal	-4	±	9	-7	±	14	0	±	26	-5	±	16	13	±	29	25	-8	±	18	0.011
4033	wm-rh-temporalpole	-4	±	8	-7	±	13	3	±	26	4	±	17	38	±	38	49	-8	±	19	<0.001
4034	wm-rh-transversetemporal	-4	±	10	-7	±	15	4	±	31	6	±	27	22	±	36	26	-9	±	18	0.022
Other selected brain regions																					
85	Optic-Chiasm	-1	±	14	22	±	34	85	±	79	90	±	79	33	±	40	39	-15	±	19	<0.001
16	Brain-Stem	0	±	8	-2	±	14	11	±	27	12	±	26	17	±	23	28	-8	±	18	0.009
255	CC_Anterior	-2	±	9	-5	±	14	6	±	26	7	±	21	13	±	22	33	-7	±	18	0.002
253	CC_Central	-2	±	9	-5	±	15	9	±	30	9	±	32	12	±	21	26	-9	±	17	0.001
254	CC_Mid_Anterior	-2	±	9	-5	±	15	6	±	27	6	±	25	11	±	22	29	-8	±	18	0.002
252	CC_Mid_Posterior	-2	±	10	-1	±	21	24	±	46	27	±	54	15	±	25	43	-9	±	18	0.002
251	CC_Posterior	-1	±	10	-5	±	14	6	±	25	8	±	24	17	±	25	35	-8	±	19	0.002
13, 52	Left-Pallidum, Right-Pallidum	-2	±	8	-6	±	14	0	±	25	-6	±	13	2	±	17	16	-8	±	18	0.017
12, 51	Left-Putamen, Right-Putamen	-4	±	8	-6	±	14	0	±	25	-6	±	13	7	±	19	34	-8	±	17	0.007
10, 49	Left-Thalamus-Proper, Right-Thalamus-Proper	-2	±	8	-4	±	15	5	±	26	2	±	18	11	±	21	24	-8	±	18	0.008
11, 50	Left-Caudate, Right-Caudate	-4	±	8	-6	±	14	2	±	27	-1	±	19	5	±	19	46	-8	±	17	0.005

26, 58	Left-Accumbens-area, Right-Accumbens-area	-4	±	8	-6	±	14	5	±	26	11	±	22	31	±	31	44	-8	±	17	<0.001
18, 54	Left-Amygdala, Right- Amygdala	-3	±	7	-3	±	14	14	±	28	21	±	28	37	±	37	34	-8	±	17	0.004
17, 53	Left-Hippocampus, Right-Hippocampus	-1	±	7	2	±	17	35	±	45	48	±	55	39	±	39	31	-8	±	17	0.005
CSF regions																					
24	CSF	16	±	20	101	±	116	354	±	309	500	±	421	157	±	164	177	-8	±	17	<0.001
14	3rd-Ventricle	5	±	13	332	±	823	493	±	915	467	±	898	146	±	221	183	-10	±	16	0.011
15	4th-Ventricle	359	±	457	883	±	1347	105	±	1285	936	±	1167	266	±	295	215	-5	±	24	0.009
5, 44	Left-Inf-Lat-Vent, Right-Inf-Lat-Vent	-3	±	6	39	±	122	74	±	159	66	±	168	26	±	54	13	-14	±	17	<0.001
4, 43	Left-Lateral-Ventricle, Right-Lateral-Ventricle	-10	±	8	342	±	957	641	±	1415	656	±	1438	173	±	325	228	-10	±	12	0.052

Data presented as mean ± standard deviation. *Sign.: Significant differences over time was determined by a linear mixed model for repeated measurements. SegID – FreeSurfer segmentation identity; Ctx - Cortex; lh – left hemisphere; rh – right hemisphere; wm – white matter; CC – corpus callosum; CSF – cerebrospinal fluid.

Table S3. Percentage change in normalized T1 signals at various time points after intrathecal gadobutrol in iNPH individuals

		Time after intrathecal gadobutrol																					
SegID	StructName	1.5 - 2 h			2-4 h			4-6 h			6-9 h			24 h			48 h			4 weeks			*Sign
<i>Some cortical grey matter regions</i>																							
1002	ctx-lh-caudalanteriorcingulate	2	±	20	1	±	15	20	±	23	66	±	63	127	±	56	68	±	65	5	±	18	<0.001
1003	ctx-lh-caudalmiddlefrontal	3	±	25	-1	±	16	0	±	22	-6	±	16	39	±	53	64	±	30	2	±	19	<0.001
1005	ctx-lh-cuneus	2	±	12	1	±	9	5	±	16	8	±	18	67	±	45	69	±	63	7	±	14	<0.001
1006	ctx-lh-entorhinal	4	±	27	8	±	18	73	±	51	103	±	71	112	±	55	64	±	65	5	±	21	<0.001
1032	ctx-lh-frontalpole	-1	±	16	-2	±	11	-1	±	15	11	±	27	136	±	67	95	±	76	4	±	14	<0.001
1007	ctx-lh-fusiform	3	±	26	2	±	18	14	±	24	28	±	37	78	±	43	63	±	55	6	±	19	<0.001
1008	ctx-lh-inferiorparietal	3	±	26	1	±	17	4	±	23	-4	±	15	28	±	43	51	±	19	6	±	17	<0.001
1009	ctx-lh-inferiortemporal	3	±	32	-1	±	21	3	±	28	-2	±	19	42	±	42	62	±	39	6	±	21	<0.001
1035	ctx-lh-insula	2	±	27	6	±	19	61	±	50	92	±	63	120	±	55	70	±	68	6	±	20	<0.001
1010	ctx-lh-isthmuscingulate	4	±	19	6	±	11	28	±	25	54	±	38	100	±	43	65	±	65	7	±	17	<0.001
1011	ctx-lh-lateraloccipital	3	±	17	1	±	13	5	±	18	1	±	14	20	±	26	48	±	23	9	±	13	<0.001
1012	ctx-lh-lateralorbitofrontal	2	±	23	4	±	13	34	±	23	66	±	49	117	±	55	70	±	67	4	±	15	<0.001
1013	ctx-lh-lingual	4	±	19	4	±	13	17	±	21	38	±	40	93	±	47	69	±	67	8	±	15	<0.001
1014	ctx-lh-medialorbitofrontal	2	±	16	9	±	14	79	±	56	133	±	83	141	±	59	81	±	77	5	±	16	<0.001
1015	ctx-lh-middletemporal	5	±	34	0	±	23	3	±	29	-4	±	20	57	±	58	69	±	48	7	±	22	<0.001
1017	ctx-lh-paracentral	3	±	19	1	±	13	4	±	21	5	±	19	51	±	48	49	±	35	3	±	18	<0.001
1016	ctx-lh-parahippocampal	6	±	26	17	±	23	92	±	79	119	±	74	112	±	52	62	±	65	6	±	18	<0.001
1018	ctx-lh-parsopercularis	3	±	27	-1	±	18	10	±	28	22	±	29	105	±	58	66	±	55	3	±	19	<0.001
1019	ctx-lh-parsorbitalis	-2	±	24	-3	±	14	6	±	28	14	±	23	111	±	58	76	±	64	4	±	17	<0.001
1020	ctx-lh-parstriangularis	0	±	26	-3	±	16	8	±	28	22	±	30	110	±	57	77	±	69	3	±	18	<0.001
1021	ctx-lh-pericalcarine	2	±	12	3	±	9	11	±	15	21	±	21	86	±	44	77	±	67	9	±	14	<0.001
1022	ctx-lh-postcentral	4	±	27	0	±	19	6	±	27	7	±	22	81	±	56	71	±	53	4	±	20	<0.001
1023	ctx-lh-posteriorcingulate	4	±	21	2	±	15	7	±	24	25	±	41	87	±	55	60	±	54	3	±	18	<0.001
1024	ctx-lh-precentral	5	±	27	0	±	18	5	±	26	4	±	22	64	±	54	61	±	38	2	±	20	<0.001
1025	ctx-lh-precuneus	4	±	17	2	±	12	5	±	20	6	±	19	61	±	48	55	±	44	6	±	16	<0.001
1026	ctx-lh-rostralanteriorcingulate	1	±	18	7	±	12	79	±	54	141	±	92	143	±	61	73	±	71	6	±	17	<0.001
1027	ctx-lh-rostralmiddlefrontal	-1	±	22	-3	±	14	-2	±	22	-6	±	16	59	±	52	86	±	57	2	±	17	<0.001
1028	ctx-lh-superiorfrontal	3	±	18	0	±	13	2	±	19	2	±	17	67	±	41	71	±	42	3	±	17	<0.001
1029	ctx-lh-superiorparietal	4	±	18	2	±	13	3	±	21	-2	±	16	34	±	48	50	±	12	7	±	18	<0.001
1030	ctx-lh-superiortemporal	5	±	32	1	±	22	19	±	28	40	±	35	109	±	57	71	±	64	6	±	22	<0.001
1031	ctx-lh-supramarginal	5	±	32	0	±	21	6	±	26	6	±	22	93	±	57	78	±	59	5	±	21	<0.001
1033	ctx-lh-temporalpole	4	±	30	6	±	19	46	±	42	87	±	62	130	±	68	72	±	75	8	±	21	<0.001
1034	ctx-lh-transversetemporal	5	±	28	4	±	21	40	±	38	76	±	57	94	±	48	55	±	56	6	±	20	<0.001
2002	ctx-rh-caudalanteriorcingulate	3	±	20	1	±	14	22	±	27	62	±	49	137	±	55	64	±	60	4	±	16	<0.001

2003	ctx-rh-caudalmiddlefrontal	5	±	20	1	±	15	-1	±	21	-8	±	16	43	±	55	59	±	36	2	±	19	<0.001
2005	ctx-rh-cuneus	2	±	9	2	±	7	6	±	16	10	±	20	80	±	54	72	±	72	7	±	14	<0.001
2006	ctx-rh-entorhinal	7	±	19	10	±	15	63	±	47	99	±	68	121	±	50	62	±	71	4	±	15	<0.001
2032	ctx-rh-frontalpole	1	±	10	0	±	7	0	±	15	9	±	19	141	±	68	102	±	92	4	±	15	<0.001
2007	ctx-rh-fusiform	7	±	18	4	±	14	13	±	25	29	±	38	87	±	43	63	±	66	6	±	18	<0.001
2008	ctx-rh-inferiorparietal	9	±	19	5	±	13	4	±	24	-1	±	17	32	±	48	37	±	7	5	±	18	<0.001
2009	ctx-rh-inferiortemporal	9	±	23	3	±	19	5	±	27	1	±	18	49	±	39	57	±	48	8	±	20	<0.001
2035	ctx-rh-insula	4	±	22	8	±	17	62	±	54	109	±	78	135	±	58	70	±	75	8	±	20	<0.001
2010	ctx-rh-isthmuscingulate	4	±	16	7	±	11	33	±	25	58	±	43	107	±	45	62	±	68	5	±	16	<0.001
2011	ctx-rh-lateraloccipital	5	±	11	2	±	8	3	±	14	2	±	13	20	±	23	36	±	25	8	±	15	<0.001
2012	ctx-rh-lateralorbitofrontal	4	±	19	5	±	13	42	±	38	84	±	63	134	±	56	75	±	79	5	±	15	<0.001
2013	ctx-rh-lingual	6	±	14	6	±	11	19	±	23	40	±	48	101	±	46	68	±	70	7	±	15	<0.001
2014	ctx-rh-medialorbitofrontal	3	±	15	9	±	12	80	±	59	132	±	83	151	±	59	74	±	71	4	±	14	<0.001
2015	ctx-rh-middletemporal	9	±	25	2	±	19	5	±	29	0	±	25	67	±	61	62	±	49	7	±	20	<0.001
2017	ctx-rh-paracentral	3	±	18	1	±	12	3	±	21	6	±	20	63	±	50	55	±	44	1	±	16	<0.001
2016	ctx-rh-parahippocampal	13	±	22	21	±	26	94	±	88	124	±	75	125	±	49	61	±	73	7	±	18	<0.001
2018	ctx-rh-parsopercularis	6	±	22	2	±	17	17	±	33	33	±	39	120	±	58	68	±	68	5	±	19	<0.001
2019	ctx-rh-parsorbitalis	5	±	17	1	±	14	7	±	25	16	±	25	135	±	60	79	±	83	4	±	16	<0.001
2020	ctx-rh-parstriangularis	5	±	20	0	±	16	10	±	31	18	±	33	123	±	56	75	±	80	4	±	18	<0.001
2021	ctx-rh-pericalcarine	3	±	10	3	±	9	11	±	18	19	±	22	89	±	53	71	±	66	8	±	13	<0.001
2022	ctx-rh-postcentral	7	±	21	2	±	16	6	±	27	8	±	24	88	±	55	70	±	52	4	±	20	<0.001
2023	ctx-rh-posteriorcingulate	5	±	21	2	±	15	7	±	22	24	±	34	96	±	54	62	±	57	3	±	18	<0.001
2024	ctx-rh-precentral	6	±	22	2	±	16	5	±	25	2	±	20	64	±	50	60	±	43	2	±	19	<0.001
2025	ctx-rh-precuneus	3	±	15	3	±	10	6	±	19	7	±	20	74	±	53	64	±	57	5	±	16	<0.001
2026	ctx-rh-rostralanteriorcingulate	2	±	16	5	±	12	76	±	56	128	±	72	149	±	55	68	±	66	5	±	13	<0.001
2027	ctx-rh-rostralmiddlefrontal	2	±	17	-1	±	13	-2	±	21	-8	±	17	74	±	55	85	±	73	3	±	16	<0.001
2028	ctx-rh-superiorfrontal	2	±	17	-1	±	12	1	±	19	3	±	17	80	±	46	75	±	50	2	±	16	<0.001
2029	ctx-rh-superiorparietal	5	±	14	4	±	9	3	±	19	-1	±	15	28	±	42	41	±	5	4	±	14	<0.001
2030	ctx-rh-superiortemporal	8	±	24	4	±	19	21	±	33	34	±	32	122	±	56	71	±	67	7	±	20	<0.001
2031	ctx-rh-supramarginal	8	±	23	3	±	17	9	±	28	11	±	30	102	±	56	76	±	66	5	±	20	<0.001
2033	ctx-rh-temporalpole	3	±	17	7	±	15	46	±	43	88	±	60	144	±	57	82	±	79	2	±	18	<0.001
2034	ctx-rh-transversetemporal	9	±	22	5	±	17	54	±	55	77	±	54	105	±	48	57	±	58	7	±	21	<0.001
<i>Some white matter regions</i>																							
3002	wm-lh-caudalanteriorcingulate	2	±	19	-1	±	14	5	±	19	6	±	19	41	±	29	26	±	27	1	±	15	<0.001
3003	wm-lh-caudalmiddlefrontal	3	±	21	-1	±	15	-1	±	20	-7	±	14	7	±	21	18	±	6	1	±	17	<0.001
3005	wm-lh-cuneus	3	±	14	0	±	10	1	±	16	-1	±	13	26	±	23	30	±	24	4	±	13	<0.001
3006	wm-lh-entorhinal	2	±	23	-1	±	16	5	±	20	9	±	22	54	±	34	35	±	32	2	±	18	<0.001
3032	wm-lh-frontalpole	-1	±	16	-3	±	12	-5	±	15	-4	±	14	56	±	36	44	±	28	2	±	13	<0.001
3007	wm-lh-fusiform	2	±	22	-1	±	16	4	±	20	1	±	16	31	±	26	28	±	22	3	±	16	<0.001
3008	wm-lh-inferiorparietal	3	±	21	1	±	15	4	±	20	-2	±	14	11	±	19	26	±	17	4	±	15	<0.001

3009	wm-lh-inferiortemporal	1	±	25	-2	±	18	1	±	24	-6	±	16	13	±	22	28	±	17	2	±	17	<0.001
3035	wm-lh-insula	2	±	23	-1	±	16	1	±	20	-1	±	16	32	±	27	27	±	25	1	±	17	<0.001
3010	wm-lh-isthmuscingulate	2	±	18	1	±	13	9	±	20	11	±	19	38	±	27	25	±	27	4	±	16	<0.001
3011	wm-lh-lateraloccipital	3	±	16	0	±	12	4	±	16	-1	±	13	11	±	17	26	±	16	6	±	13	<0.001
3012	wm-lh-lateralorbitofrontal	2	±	19	-2	±	13	0	±	17	-1	±	14	41	±	27	31	±	27	0	±	15	<0.001
3013	wm-lh-lingual	3	±	17	0	±	13	8	±	16	11	±	20	41	±	29	29	±	26	5	±	14	<0.001
3014	wm-lh-medialorbitofrontal	2	±	17	-1	±	13	3	±	16	9	±	20	50	±	31	32	±	29	1	±	15	<0.001
3015	wm-lh-middletemporal	2	±	26	-2	±	18	0	±	22	-8	±	15	15	±	26	28	±	17	2	±	18	<0.001
3017	wm-lh-paracentral	3	±	19	0	±	13	1	±	20	-6	±	13	12	±	23	22	±	16	1	±	16	<0.001
3016	wm-lh-parahippocampal	3	±	23	-1	±	16	11	±	20	23	±	29	60	±	34	29	±	29	3	±	17	<0.001
3018	wm-lh-parsopercularis	2	±	23	-2	±	17	-2	±	21	-7	±	14	27	±	28	25	±	16	1	±	17	<0.001
3019	wm-lh-parsorbitalis	-1	±	20	-4	±	13	-3	±	20	-5	±	14	39	±	32	37	±	28	0	±	15	<0.001
3020	wm-lh-parstriangularis	0	±	22	-3	±	15	-2	±	20	-6	±	14	35	±	28	32	±	25	0	±	17	<0.001
3021	wm-lh-pericalcarine	3	±	13	2	±	11	10	±	14	10	±	18	41	±	30	38	±	33	6	±	13	<0.001
3022	wm-lh-postcentral	3	±	22	-1	±	16	0	±	22	-6	±	15	23	±	31	28	±	15	2	±	18	<0.001
3023	wm-lh-posteriorcingulate	3	±	19	0	±	13	6	±	21	3	±	16	34	±	28	26	±	26	2	±	16	<0.001
3024	wm-lh-precentral	3	±	22	-1	±	16	0	±	21	-7	±	15	11	±	25	21	±	9	1	±	17	<0.001
3025	wm-lh-precuneus	3	±	17	0	±	12	3	±	19	-2	±	13	24	±	24	28	±	22	3	±	15	<0.001
3026	wm-lh-rostralanteriorcingulate	2	±	17	0	±	13	6	±	18	14	±	20	52	±	28	30	±	27	1	±	15	<0.001
3027	wm-lh-rostralmiddlefrontal	0	±	20	-3	±	14	-3	±	18	-9	±	13	11	±	21	28	±	17	0	±	16	<0.001
3028	wm-lh-superiorfrontal	2	±	18	-2	±	13	-2	±	18	-7	±	13	14	±	20	27	±	15	0	±	16	<0.001
3029	wm-lh-superiorparietal	3	±	18	1	±	12	1	±	19	-5	±	13	10	±	20	23	±	11	3	±	15	<0.001
3030	wm-lh-superiortemporal	2	±	25	-2	±	18	1	±	22	-2	±	17	36	±	31	32	±	27	2	±	18	<0.001
3031	wm-lh-supramarginal	3	±	24	-1	±	17	1	±	22	-6	±	15	22	±	26	35	±	27	2	±	18	<0.001
3033	wm-lh-temporalpole	2	±	23	-1	±	16	1	±	19	5	±	20	63	±	43	42	±	44	2	±	18	<0.001
3034	wm-lh-transversetemporal	3	±	25	-1	±	18	2	±	22	3	±	18	43	±	30	29	±	27	3	±	18	<0.001
4001	wm-rh-bankssts	7	±	20	1	±	16	3	±	23	-5	±	14	20	±	24	22	±	19	3	±	18	<0.001
4002	wm-rh-caudalanteriorcingulate	2	±	17	-1	±	12	5	±	18	8	±	20	46	±	27	25	±	30	1	±	14	<0.001
4003	wm-rh-caudalmiddlefrontal	5	±	19	0	±	14	0	±	21	-8	±	13	7	±	21	18	±	9	0	±	16	<0.001
4005	wm-rh-cuneus	3	±	12	0	±	9	2	±	15	-1	±	13	26	±	25	30	±	26	4	±	13	<0.001
4006	wm-rh-entorhinal	4	±	18	-1	±	14	4	±	20	7	±	22	59	±	34	33	±	33	0	±	15	<0.001
4032	wm-rh-frontalpole	0	±	13	-2	±	9	-4	±	15	-6	±	11	57	±	34	45	±	37	2	±	12	<0.001
4007	wm-rh-fusiform	5	±	18	1	±	14	5	±	19	0	±	14	34	±	26	26	±	26	4	±	16	<0.001
4008	wm-rh-inferiorparietal	6	±	18	2	±	13	4	±	21	-3	±	13	12	±	21	17	±	9	3	±	16	<0.001
4009	wm-rh-inferiortemporal	6	±	20	1	±	17	2	±	22	-6	±	13	15	±	22	24	±	17	3	±	17	<0.001
4035	wm-rh-insula	4	±	19	0	±	15	2	±	21	0	±	16	35	±	28	26	±	26	2	±	17	<0.001
4010	wm-rh-isthmuscingulate	3	±	16	0	±	12	8	±	19	10	±	19	40	±	27	24	±	28	3	±	15	<0.001
4011	wm-rh-lateraloccipital	5	±	13	1	±	11	3	±	16	-2	±	12	9	±	18	13	±	8	6	±	13	<0.001
4012	wm-rh-lateralorbitofrontal	4	±	17	0	±	12	1	±	19	-1	±	14	43	±	28	33	±	33	1	±	14	<0.001
4013	wm-rh-lingual	4	±	15	1	±	12	6	±	15	7	±	15	42	±	25	27	±	26	5	±	13	<0.001
4014	wm-rh-medialorbitofrontal	3	±	15	-1	±	11	4	±	16	8	±	19	53	±	30	34	±	32	1	±	14	<0.001

4015	wm-rh-middletemporal	7	±	21	1	±	16	2	±	24	-6	±	13	16	±	26	19	±	11	4	±	18	<0.001
4017	wm-rh-paracentral	3	±	17	0	±	13	1	±	20	-5	±	13	15	±	23	23	±	18	1	±	16	<0.001
4016	wm-rh-parahippocampal	5	±	20	0	±	15	11	±	22	21	±	25	60	±	32	26	±	30	3	±	16	<0.001
4018	wm-rh-parsopercularis	5	±	20	0	±	15	0	±	22	-6	±	14	29	±	27	24	±	19	1	±	17	<0.001
4019	wm-rh-parsorbitalis	4	±	17	-1	±	12	-1	±	19	-6	±	12	43	±	29	36	±	32	1	±	14	<0.001
4020	wm-rh-parstriangularis	4	±	19	0	±	15	0	±	20	-7	±	13	36	±	28	31	±	32	1	±	15	<0.001
4021	wm-rh-pericalcarine	2	±	12	0	±	9	5	±	15	3	±	15	35	±	27	30	±	27	5	±	13	<0.001
4022	wm-rh-postcentral	5	±	20	0	±	15	0	±	22	-6	±	14	23	±	29	24	±	13	1	±	18	<0.001
4023	wm-rh-posteriorcingulate	3	±	18	-1	±	12	5	±	20	1	±	15	34	±	26	24	±	25	1	±	15	<0.001
4024	wm-rh-precentral	5	±	19	0	±	14	0	±	22	-7	±	14	11	±	23	19	±	10	0	±	17	<0.001
4025	wm-rh-precuneus	3	±	15	1	±	11	3	±	18	-2	±	13	29	±	26	28	±	22	3	±	14	<0.001
4026	wm-rh-rostralanteriorcingulate	3	±	15	-1	±	12	4	±	16	9	±	18	52	±	29	28	±	30	0	±	13	<0.001
4027	wm-rh-rostralmiddlefrontal	3	±	17	-1	±	13	-1	±	18	-9	±	12	14	±	20	27	±	21	1	±	15	<0.001
4028	wm-rh-superiorfrontal	3	±	17	-1	±	13	-2	±	18	-7	±	13	17	±	20	25	±	15	0	±	15	<0.001
4029	wm-rh-superiorparietal	4	±	15	1	±	11	1	±	19	-4	±	13	8	±	19	18	±	8	3	±	15	<0.001
4030	wm-rh-superiortemporal	6	±	21	0	±	16	2	±	23	-3	±	15	41	±	31	28	±	25	3	±	18	<0.001
4031	wm-rh-supramarginal	6	±	20	1	±	16	1	±	22	-5	±	13	24	±	26	28	±	21	2	±	18	<0.001
4033	wm-rh-temporalpole	3	±	17	0	±	13	-1	±	18	3	±	18	62	±	35	42	±	37	1	±	15	<0.001
4034	wm-rh-transversetemporal	7	±	21	1	±	16	3	±	23	3	±	18	46	±	31	24	±	22	3	±	19	<0.001
Other selected brain regions																							
85	Optic-Chiasm	8	±	18	33	±	28	120	±	87	142	±	66	96	±	49	41	±	51	2	±	15	<0.001
16	Brain-Stem	4	±	19	3	±	15	13	±	21	13	±	19	29	±	24	17	±	20	3	±	16	<0.001
255	CC_Anterior	2	±	17	0	±	13	14	±	21	28	±	28	54	±	28	23	±	28	0	±	14	<0.001
253	CC_Central	0	±	20	0	±	14	29	±	29	46	±	41	70	±	45	31	±	38	1	±	15	<0.001
254	CC_Mid_Anterior	2	±	19	1	±	14	25	±	33	38	±	41	66	±	41	38	±	47	3	±	16	<0.001
252	CC_Mid_Posterior	2	±	20	1	±	15	20	±	24	34	±	31	60	±	35	25	±	29	3	±	15	<0.001
251	CC_Posterior	2	±	19	1	±	13	18	±	26	28	±	34	61	±	42	36	±	45	3	±	16	<0.001
13, 52	Left-Pallidum, Right-Pallidum	3	±	20	-1	±	15	0	±	20	-6	±	13	3	±	19	6	±	10	1	±	16	<0.001
12, 51	Left-Putamen, Right-Putamen	4	±	21	0	±	15	0	±	20	-6	±	13	14	±	20	19	±	18	2	±	16	<0.001
10, 49	Left-Thalamus-Proper, Right-Thalamus-Proper	5	±	21	2	±	16	10	±	22	10	±	17	33	±	27	20	±	24	3	±	17	<0.001
11, 50	Left-Caudate, Right-Caudate	4	±	20	1	±	15	13	±	21	28	±	29	62	±	42	41	±	46	2	±	17	<0.001
26, 58	Left-Accumbens-area, Right-Accumbens-area	5	±	19	2	±	14	16	±	21	27	±	26	74	±	38	41	±	41	4	±	16	<0.001
18, 54	Left-Amygdala, Right-Amygdala	5	±	23	3	±	16	19	±	25	33	±	35	76	±	41	46	±	49	4	±	16	<0.001
17, 53	Left-Hippocampus, Right-Hippocampus	5	±	23	10	±	18	65	±	54	87	±	62	100	±	45	47	±	52	5	±	17	<0.001

CSF regions																							
24	CSF	23	±	29	94	±	80	448	±	346	755	±	323	719	±	363	256	±	304	2	±	16	<0.001
14	3rd-Ventricle	96	±	73	642	±	688	1648	±	1199	1647	±	909	1156	±	592	493	±	576	1	±	21	<0.001
15	4th-Ventricle	676	±	1236	1520	±	1202	2794	±	1347	2430	±	842	1234	±	494	502	±	589	0	±	15	<0.001
5, 44	Left-Inf-Lat-Vent, Right-Inf-Lat-Vent	8	±	32	92	±	103	880	±	760	1157	±	747	1025	±	591	394	±	502	1	±	19	<0.001
4, 43	Left-Lateral-Ventricle, Right-Lateral-Ventricle	11	±	28	296	±	350	2598	±	2179	3041	±	1808	2272	±	1217	869	±	1104	-7	±	19	<0.001

Data presented as mean ± standard deviation. *Sign.: Significant differences over time was determined by a linear mixed model for repeated measurements. SegID – FreeSurfer segmentation identity; Ctx - Cortex; lh – left hemisphere; rh – right hemisphere; wm – white matter; CC – corpus callosum; CSF – cerebrospinal fluid.

Table S4. Percentage change in normalized T1 signals at various time points after intrathecal gadobutrol in REF and iNPH individuals

SegID	Structure name	Group	Time after intrathecal gadobutrol																					Overall test of time						
			1.5 - 2 h			2 - 4 h			4 - 6 h			6 - 9 h			24h			48 h			4 weeks									
			Mean	SD	*Sign	Mean	SD	*Sign	Mean	SD	*Sign	Mean	SD	*Sign	Mean	SD	*Sign	Mean	SD	Mean	SD	*Sign	*Sign							
Some cortical grey matter regions																														
1002	ctx-lh-caudalanteriorcingulate	REF	-3	±	8	0.435	-2	±	15	0.677	32	±	54	0.441	64	±	62	0.987	63	±	60	0.021	70		-2	±	19	0.771	<0.001	
1002	ctx-lh-caudalanteriorcingulate	iNPH	2	±	20		1	±	15		20	±	23		66	±	63		127	±	56		68	±	65	5	±	18		<0.001
1003	ctx-lh-caudalmiddlefrontal	REF	-3	±	9	0.503	-5	±	16	0.601	6	±	32	0.666	2	±	30	0.366	43	±	65	0.881	36		-6	±	20	0.855	<0.001	
1003	ctx-lh-caudalmiddlefrontal	iNPH	3	±	25		-1	±	16		0	±	22		-6	±	16		39	±	53		64	±	30	2	±	19		<0.001
1005	ctx-lh-cuneus	REF	1	±	8	0.399	-1	±	13	0.669	13	±	42	0.429	34	±	51	0.145	47	±	55	0.398	85		-5	±	19	0.367	0.088	
1005	ctx-lh-cuneus	iNPH	2	±	12		1	±	9		5	±	16		8	±	18		67	±	45		69	±	63	7	±	14		<0.001
1006	ctx-lh-entorhinal	REF	1	±	6	0.782	6	±	16	0.776	58	±	61	0.713	87	±	75	0.747	59	±	50	0.064	52		-6	±	17	0.526	0.001	
1006	ctx-lh-entorhinal	iNPH	4	±	27		8	±	18		73	±	51		103	±	71		112	±	55		64	±	65	5	±	21		<0.001
1032	ctx-lh-frontalpole	REF	0	±	10	0.884	-4	±	13	0.743	10	±	19	0.115	32	±	41	0.180	94	±	78	0.230	106		0	±	20	0.616	<0.001	
1032	ctx-lh-frontalpole	iNPH	-1	±	16		-2	±	11		-1	±	15		11	±	27		136	±	67		95	±	76	4	±	14		<0.001
1007	ctx-lh-fusiform	REF	1	±	8	0.361	1	±	16	0.907	21	±	41	0.500	35	±	55	0.683	41	±	51	0.127	51		-7	±	18	0.850	0.151	
1007	ctx-lh-fusiform	iNPH	3	±	26		2	±	18		14	±	24		28	±	37		78	±	43		63	±	55	6	±	19		<0.001
1008	ctx-lh-inferiorparietal	REF	-3	±	7	0.296	-6	±	14	0.332	1	±	24	0.909	1	±	19	0.379	32	±	49	0.855	38		-6	±	19	0.412	0.035	
1008	ctx-lh-inferiorparietal	iNPH	3	±	26		1	±	17		4	±	23		-4	±	15		28	±	43		51	±	19	6	±	17		<0.001
1009	ctx-lh-inferiortemporal	REF	-2	±	8	0.239	-4	±	16	0.765	11	±	36	0.488	8	±	36	0.345	34	±	52	0.727	34		-8	±	18	0.610	0.034	
1009	ctx-lh-inferiortemporal	iNPH	3	±	32		-1	±	21		3	±	28		-2	±	19		42	±	42		62	±	39	6	±	21		<0.001
1035	ctx-lh-insula	REF	-1	±	8	0.965	4	±	20	0.816	56	±	74	0.989	88	±	91	0.984	62	±	62	0.082	60		-6	±	18	0.376	0.007	
1035	ctx-lh-insula	iNPH	2	±	27		6	±	19		61	±	50		92	±	63		120	±	55		70	±	68	6	±	20		<0.001
1010	ctx-lh-isthmuscingulate	REF	-1	±	7	0.416	-1	±	14	0.220	21	±	40	0.728	36	±	46	0.404	40	±	43	0.004	64		-6	±	18	0.468	0.021	
1010	ctx-lh-isthmuscingulate	iNPH	4	±	19		6	±	11		28	±	25		54	±	38		100	±	43		65	±	65	7	±	17		<0.001
1011	ctx-lh-lateraloccipital	REF	2	±	5	0.269	-2	±	12	0.647	-1	±	20	0.643	1	±	15	0.674	19	±	29	0.978	32		-4	±	20	0.257	0.223	
1011	ctx-lh-lateraloccipital	iNPH	3	±	17		1	±	13		5	±	18		1	±	14		20	±	26		48	±	23	9	±	13		<0.001
1012	ctx-lh-lateralorbitofrontal	REF	-2	±	6	0.468	1	±	14	0.624	44	±	56	0.479	80	±	63	0.549	68	±	58	0.068	62		-5	±	18	0.908	<0.001	
1012	ctx-lh-lateralorbitofrontal	iNPH	2	±	23		4	±	13		34	±	23		66	±	49		117	±	55		70	±	67	4	±	15		<0.001
1013	ctx-lh-lingual	REF	3	±	7	0.402	2	±	14	0.686	14	±	28	0.955	31	±	40	0.810	42	±	47	0.030	62		-5	±	19	0.492	0.100	
1013	ctx-lh-lingual	iNPH	4	±	19		4	±	13		17	±	21		38	±	40		93	±	47		69	±	67	8	±	15		<0.001
1014	ctx-lh-medialorbitofrontal	REF	-2	±	4	0.777	6	±	18	0.664	68	±	78	0.885	121	±	92	0.823	79	±	66	0.044	76		-4	±	17	0.535	<0.001	
1014	ctx-lh-medialorbitofrontal	iNPH	2	±	16		9	±	14		79	±	56		133	±	83		141	±	59		81	±	77	5	±	16		<0.001
1015	ctx-lh-middletemporal	REF	-4	±	9	0.187	-5	±	16	0.614	12	±	41	0.460	12	±	40	0.203	50	±	67	0.815	69		-8	±	17	0.600	0.025	
1015	ctx-lh-middletemporal	iNPH	5	±	34		0	±	23		3	±	29		-4	±	20		57	±	58		69	±	48	7	±	22		<0.001
1017	ctx-lh-paracentral	REF	-4	±	8	0.128	-5	±	14	0.292	11	±	40	0.622	16	±	44	0.385	43	±	46	0.718	27		-5	±	19	0.920	<0.001	
1017	ctx-lh-paracentral	iNPH	3	±	19		1	±	13		4	±	21		5	±	19		51	±	48		49	±	35	3	±	18		<0.001
1016	ctx-lh-parahippocampal	REF	1	±	7	0.821	17	±	37	0.982	77	±	92	0.799	97	±	100	0.674	54	±	52	0.130	45		-6	±	18	0.245	<0.001	

1016	ctx-lh-parahippocampal	iNPH	6	±	26		17	±	23		92	±	79		119	±	74		112	±	52		62	±	65		6	±	18		<0.001
1018	ctx-lh-parsopercularis	REF	-4	±	8	0.584	-4	±	16	0.767	25	±	51	0.429	36	±	59	0.473	58	±	62	0.105	60				-6	±	18	0.925	0.038
1018	ctx-lh-parsopercularis	iNPH	3	±	27		-1	±	18		10	±	28		22	±	29		105	±	58		66	±	55		3	±	19		<0.001
1019	ctx-lh-parsorbitalis	REF	-2	±	7	0.677	-4	±	14	0.901	18	±	34	0.394	38	±	38	0.084	73	±	65	0.199	68				-3	±	21	0.984	<0.001
1019	ctx-lh-parsorbitalis	iNPH	-2	±	24		-3	±	14		6	±	28		14	±	23		111	±	58		76	±	64		4	±	17		<0.001
1020	ctx-lh-parstriangularis	REF	-4	±	9	0.697	-5	±	15	0.805	10	±	32	0.780	19	±	34	0.975	59	±	57	0.060	68				-5	±	20	0.903	0.007
1020	ctx-lh-parstriangularis	iNPH	0	±	26		-3	±	16		8	±	28		22	±	30		110	±	57		77	±	69		3	±	18		<0.001
1021	ctx-lh-pericalcarine	REF	2	±	5	0.435	-1	±	13	0.505	15	±	45	0.639	37	±	54	0.381	40	±	47	0.036	64				-5	±	19	0.384	0.084
1021	ctx-lh-pericalcarine	iNPH	2	±	12		3	±	9		11	±	15		21	±	21		86	±	44		77	±	67		9	±	14		<0.001
1022	ctx-lh-postcentral	REF	-6	±	9	0.284	-5	±	16	0.504	18	±	47	0.515	23	±	52	0.325	49	±	64	0.271	56				-8	±	18	0.791	<0.001
1022	ctx-lh-postcentral	iNPH	4	±	27		0	±	19		6	±	27		7	±	22		81	±	56		71	±	53		4	±	20		<0.001
1023	ctx-lh-posteriorcingulate	REF	-3	±	6	0.131	-4	±	14	0.334	20	±	53	0.485	32	±	57	0.693	49	±	48	0.110	54				-6	±	18	0.995	<0.001
1023	ctx-lh-posteriorcingulate	iNPH	4	±	21		2	±	15		7	±	24		25	±	41		87	±	55		60	±	54		3	±	18		<0.001
1024	ctx-lh-precentral	REF	-5	±	8	0.328	-5	±	16	0.510	15	±	41	0.554	18	±	45	0.325	45	±	60	0.483	50				-6	±	19	0.933	<0.001
1024	ctx-lh-precentral	iNPH	5	±	27		0	±	18		5	±	26		4	±	22		64	±	54		61	±	38		2	±	20		<0.001
1025	ctx-lh-precuneus	REF	-2	±	7	0.229	-4	±	13	0.263	10	±	34	0.693	17	±	40	0.393	40	±	46	0.350	67				-6	±	19	0.578	0.001
1025	ctx-lh-precuneus	iNPH	4	±	17		2	±	12		5	±	20		6	±	19		61	±	48		55	±	44		6	±	16		<0.001
1026	ctx-lh-rostralanteriorcingulate	REF	-4	±	7	0.769	3	±	17	0.582	61	±	82	0.695	105	±	90	0.424	70	±	66	0.018	71				-4	±	17	0.526	<0.001
1026	ctx-lh-rostralanteriorcingulate	iNPH	1	±	18		7	±	12		79	±	54		141	±	92		143	±	61		73	±	71		6	±	17		<0.001
1027	ctx-lh-rostralmiddlefrontal	REF	-3	±	9	0.784	-5	±	15	0.764	1	±	22	0.804	2	±	13	0.169	53	±	53	0.811	56				-3	±	21	0.801	<0.001
1027	ctx-lh-rostralmiddlefrontal	iNPH	-1	±	22		-3	±	14		-2	±	22		-6	±	16		59	±	52		86	±	57		2	±	17		<0.001
1028	ctx-lh-superiorfrontal	REF	-4	±	8	0.272	-5	±	13	0.467	11	±	35	0.477	16	±	42	0.330	56	±	54	0.621	53				-4	±	19	0.993	<0.001
1028	ctx-lh-superiorfrontal	iNPH	3	±	18		0	±	13		2	±	19		2	±	17		67	±	41		71	±	42		3	±	17		<0.001
1029	ctx-lh-superiorparietal	REF	-2	±	8	0.295	-6	±	14	0.213	3	±	24	0.911	5	±	22	0.324	37	±	57	0.887	35				-5	±	19	0.383	<0.001
1029	ctx-lh-superiorparietal	iNPH	4	±	18		2	±	13		3	±	21		-2	±	16		34	±	48		50	±	12		7	±	18		<0.001
1030	ctx-lh-superiortemporal	REF	-4	±	9	0.497	-2	±	17	0.720	34	±	61	0.430	56	±	68	0.458	63	±	71	0.148	74				-7	±	18	0.811	0.056
1030	ctx-lh-superiortemporal	iNPH	5	±	32		1	±	22		19	±	28		40	±	35		109	±	57		71	±	64		6	±	22		<0.001
1031	ctx-lh-supramarginal	REF	-6	±	8	0.281	-6	±	16	0.431	15	±	44	0.566	22	±	47	0.302	51	±	66	0.171	64				-9	±	18	0.759	0.083
1031	ctx-lh-supramarginal	iNPH	5	±	32		0	±	21		6	±	26		6	±	22		93	±	57		78	±	59		5	±	21		<0.001
1033	ctx-lh-temporalpole	REF	-1	±	6	0.668	3	±	15	0.710	44	±	58	0.899	86	±	73	0.941	72	±	64	0.069	83				-6	±	19	0.962	0.010
1033	ctx-lh-temporalpole	iNPH	4	±	30		6	±	19		46	±	42		87	±	62		130	±	68		72	±	75		8	±	21		<0.001
1034	ctx-lh-transversetemporal	REF	-3	±	9	0.920	2	±	22	0.865	49	±	71	0.666	75	±	86	0.948	47	±	55	0.133	60				-8	±	17	0.589	0.001
1034	ctx-lh-transversetemporal	iNPH	5	±	28		4	±	21		40	±	38		76	±	57		94	±	48		55	±	56		6	±	20		<0.001
2002	ctx-rh-caudalanteriorcingulate	REF	-5	±	8	0.476	-3	±	14	0.572	28	±	50	0.672	68	±	66	0.769	63	±	60	0.008	70				-4	±	18	0.835	0.001
2002	ctx-rh-caudalanteriorcingulate	iNPH	3	±	20		1	±	14		22	±	27		62	±	49		137	±	55		64	±	60		4	±	16		<0.001
2003	ctx-rh-caudalmiddlefrontal	REF	-6	±	7	0.162	-7	±	14	0.285	7	±	35	0.537	7	±	44	0.287	44	±	67	0.990	68				-6	±	17	0.937	<0.001
2003	ctx-rh-caudalmiddlefrontal	iNPH	5	±	20		1	±	15		-1	±	21		-8	±	16		43	±	55		59	±	36		2	±	19		<0.001
2005	ctx-rh-cuneus	REF	2	±	8	0.492	0	±	14	0.664	9	±	30	0.598	22	±	36	0.353	46	±	55	0.212	94				-4	±	19	0.440	0.088
2005	ctx-rh-cuneus	iNPH	2	±	9		2	±	7		6	±	16		10	±	20		80	±	54		72	±	72		7	±	14		<0.001
2006	ctx-rh-entorhinal	REF	-2	±	7	0.366	5	±	17	0.522	63	±	62	0.861	97	±	75	0.998	59	±	52	0.016	46				-8	±	16	0.640	0.001

2006	ctx-rh-entorhinal	iNPH	7	±	19		10	±	15		63	±	47		99	±	68		121	±	50		62	±	71		4	±	15		<0.001
2032	ctx-rh-frontalpole	REF	-2	±	7	0.575	-3	±	13	0.566	7	±	17	0.307	28	±	25	0.058	93	±	75	0.160	128				0	±	21	0.669	<0.001
2032	ctx-rh-frontalpole	iNPH	1	±	10		0	±	7		0	±	15		9	±	19		141	±	68		102	±	92		4	±	15		<0.001
2007	ctx-rh-fusiform	REF	-3	±	6	0.204	-1	±	17	0.545	24	±	44	0.431	37	±	57	0.671	42	±	52	0.083	43				-9	±	15	0.872	0.091
2007	ctx-rh-fusiform	iNPH	7	±	18		4	±	14		13	±	25		29	±	38		87	±	43		63	±	66		6	±	18		<0.001
2008	ctx-rh-inferiorparietal	REF	-3	±	7	0.041	-6	±	13	0.083	3	±	28	0.901	1	±	29	0.672	28	±	49	0.837	31				-8	±	16	0.509	0.004
2008	ctx-rh-inferiorparietal	iNPH	9	±	19		5	±	13		4	±	24		-1	±	17		32	±	48		37	±	7		5	±	18		<0.001
2009	ctx-rh-inferiortemporal	REF	-6	±	7	0.036	-6	±	14	0.216	5	±	31	0.868	6	±	28	0.557	32	±	50	0.452	35				-10	±	16	0.277	0.013
2009	ctx-rh-inferiortemporal	iNPH	9	±	23		3	±	19		5	±	27		1	±	18		49	±	39		57	±	48		8	±	20		<0.001
2035	ctx-rh-insula	REF	-5	±	7	0.818	2	±	22	0.581	54	±	72	0.912	91	±	92	0.715	57	±	61	0.017	47				-7	±	16	0.430	0.007
2035	ctx-rh-insula	iNPH	4	±	22		8	±	17		62	±	54		109	±	78		135	±	58		70	±	75		8	±	20		<0.001
2010	ctx-rh-isthmuscingulate	REF	0	±	7	0.583	1	±	16	0.391	32	±	48	0.871	57	±	66	0.983	45	±	50	0.013	80				-6	±	18	0.816	0.008
2010	ctx-rh-isthmuscingulate	iNPH	4	±	16		7	±	11		33	±	25		58	±	43		107	±	45		62	±	68		5	±	16		<0.001
2011	ctx-rh-lateraloccipital	REF	1	±	5	0.089	-2	±	12	0.358	-2	±	20	0.813	1	±	15	0.964	17	±	26	0.836	27				-7	±	17	0.142	0.151
2011	ctx-rh-lateraloccipital	iNPH	5	±	11		2	±	8		3	±	14		2	±	13		20	±	23		36	±	25		8	±	15		<0.001
2012	ctx-rh-lateralorbitofrontal	REF	-4	±	6	0.429	0	±	16	0.455	51	±	59	0.592	97	±	72	0.656	67	±	56	0.018	71				-6	±	16	0.705	<0.001
2012	ctx-rh-lateralorbitofrontal	iNPH	4	±	19		5	±	13		42	±	38		84	±	63		134	±	56		75	±	79		5	±	15		<0.001
2013	ctx-rh-lingual	REF	2	±	6	0.439	4	±	18	0.706	17	±	32	0.827	42	±	56	0.882	44	±	56	0.042	69				-5	±	17	0.859	0.091
2013	ctx-rh-lingual	iNPH	6	±	14		6	±	11		19	±	23		40	±	48		101	±	46		68	±	70		7	±	15		<0.001
2014	ctx-rh-medialorbitofrontal	REF	-3	±	5	0.798	4	±	17	0.482	63	±	71	0.733	123	±	89	0.853	79	±	66	0.021	83				-5	±	16	0.610	<0.001
2014	ctx-rh-medialorbitofrontal	iNPH	3	±	15		9	±	12		80	±	59		132	±	83		151	±	59		74	±	71		4	±	14		<0.001
2015	ctx-rh-midddletemporal	REF	-8	±	6	0.033	-8	±	13	0.161	6	±	34	0.789	9	±	38	0.427	42	±	65	0.391	54				-9	±	17	0.487	0.003
2015	ctx-rh-midddletemporal	iNPH	9	±	25		2	±	19		5	±	29		0	±	25		67	±	61		62	±	49		7	±	20		<0.001
2017	ctx-rh-paracentral	REF	-4	±	6	0.128	-7	±	13	0.191	9	±	37	0.653	13	±	40	0.588	41	±	45	0.333	33				-6	±	18	0.800	<0.001
2017	ctx-rh-paracentral	iNPH	3	±	18		1	±	12		3	±	21		6	±	20		63	±	50		55	±	44		1	±	16		<0.001
2016	ctx-rh-parahippocampal	REF	-1	±	8	0.724	21	±	52	0.995	82	±	100	0.844	104	±	105	0.679	55	±	54	0.077	40				-8	±	17	0.251	0.008
2016	ctx-rh-parahippocampal	iNPH	13	±	22		21	±	26		94	±	88		124	±	75		125	±	49		61	±	73		7	±	18		<0.001
2018	ctx-rh-parsopercularis	REF	-8	±	7	0.274	-6	±	16	0.357	31	±	69	0.562	44	±	78	0.664	55	±	66	0.027	66				-8	±	16	0.889	0.112
2018	ctx-rh-parsopercularis	iNPH	6	±	22		2	±	17		17	±	33		33	±	39		120	±	58		68	±	68		5	±	19		<0.001
2019	ctx-rh-parsorbitalis	REF	-6	±	6	0.155	-8	±	12	0.138	24	±	48	0.355	46	±	59	0.159	70	±	64	0.028	81				-5	±	18	0.971	<0.001
2019	ctx-rh-parsorbitalis	iNPH	5	±	17		1	±	14		7	±	25		16	±	25		135	±	60		79	±	83		4	±	16		<0.001
2020	ctx-rh-parstriangularis	REF	-7	±	6	0.263	-7	±	14	0.291	22	±	51	0.501	41	±	63	0.327	62	±	64	0.039	74				-7	±	17	0.907	0.038
2020	ctx-rh-parstriangularis	iNPH	5	±	20		0	±	16		10	±	31		18	±	33		123	±	56		75	±	80		4	±	18		<0.001
2021	ctx-rh-pericalcarine	REF	2	±	5	0.436	0	±	14	0.611	14	±	41	0.693	26	±	46	0.621	40	±	51	0.059	82				-6	±	18	0.457	0.232
2021	ctx-rh-pericalcarine	iNPH	3	±	10		3	±	9		11	±	18		19	±	22		89	±	53		71	±	66		8	±	13		<0.001
2022	ctx-rh-postcentral	REF	-7	±	7	0.153	-6	±	14	0.286	24	±	64	0.432	35	±	72	0.266	52	±	70	0.223	66				-8	±	17	0.916	0.005
2022	ctx-rh-postcentral	iNPH	7	±	21		2	±	16		6	±	27		8	±	24		88	±	55		70	±	52		4	±	20		<0.001
2023	ctx-rh-posteriorcingulate	REF	-3	±	7	0.135	-5	±	13	0.314	16	±	41	0.519	29	±	47	0.721	52	±	53	0.083	62				-4	±	19	0.917	<0.001
2023	ctx-rh-posteriorcingulate	iNPH	5	±	21		2	±	15		7	±	22		24	±	34		96	±	54		62	±	57		3	±	18		<0.001
2024	ctx-rh-precentral	REF	-7	±	7	0.142	-6	±	14	0.251	18	±	51	0.472	23	±	61	0.271	46	±	63	0.491	60				-8	±	16	0.908	<0.001

2024	ctx-rh-precentral	iNPH	6	±	22		2	±	16		5	±	25		2	±	20		64	±	50		60	±	43		2	±	19		<0.001
2025	ctx-rh-precuneus	REF	-2	±	7	0.267	-4	±	13	0.232	10	±	34	0.670	20	±	38	0.380	45	±	51	0.257	84				-6	±	18	0.483	0.014
2025	ctx-rh-precuneus	iNPH	3	±	15		3	±	10		6	±	19		7	±	20		74	±	53		64	±	57		5	±	16		<0.001
2026	ctx-rh-rostralanteriorcingulate	REF	-5	±	7	0.940	1	±	17	0.485	60	±	77	0.666	103	±	92	0.545	67	±	61	0.007	73				-5	±	16	0.498	<0.001
2026	ctx-rh-rostralanteriorcingulate	iNPH	2	±	16		5	±	12		76	±	56		128	±	72		149	±	55		68	±	66		5	±	13		<0.001
2027	ctx-rh-rostralmiddlefrontal	REF	-6	±	7	0.269	-7	±	14	0.348	1	±	21	0.780	2	±	17	0.209	57	±	53	0.507	91				-3	±	18	0.671	<0.001
2027	ctx-rh-rostralmiddlefrontal	iNPH	2	±	17		-1	±	13		-2	±	21		-8	±	17		74	±	55		85	±	73		3	±	16		<0.001
2028	ctx-rh-superiorfrontal	REF	-4	±	7	0.325	-5	±	14	0.498	5	±	25	0.629	11	±	30	0.406	54	±	55	0.292	68				-3	±	19	0.956	<0.001
2028	ctx-rh-superiorfrontal	iNPH	2	±	17		-1	±	12		1	±	19		3	±	17		80	±	46		75	±	50		2	±	16		<0.001
2029	ctx-rh-superiorparietal	REF	-3	±	7	0.123	-5	±	14	0.108	5	±	28	0.736	7	±	32	0.413	38	±	53	0.697	27				-5	±	19	0.598	0.007
2029	ctx-rh-superiorparietal	iNPH	5	±	14		4	±	9		3	±	19		-1	±	15		28	±	42		41	±	5		4	±	14		<0.001
2030	ctx-rh-superiortemporal	REF	-7	±	8	0.172	-4	±	16	0.350	34	±	67	0.497	61	±	82	0.318	57	±	71	0.036	57				-8	±	16	0.851	0.144
2030	ctx-rh-superiortemporal	iNPH	8	±	24		4	±	19		21	±	33		34	±	32		122	±	56		71	±	67		7	±	20		<0.001
2031	ctx-rh-supramarginal	REF	-7	±	7	0.162	-6	±	14	0.240	20	±	53	0.509	32	±	63	0.327	53	±	72	0.109	73				-9	±	16	0.855	0.125
2031	ctx-rh-supramarginal	iNPH	8	±	23		3	±	17		9	±	28		11	±	30		102	±	56		76	±	66		5	±	20		<0.001
2033	ctx-rh-temporalpole	REF	-1	±	8	0.581	1	±	15	0.437	46	±	52	0.805	92	±	75	0.855	76	±	63	0.021	63				-5	±	19	0.754	0.001
2033	ctx-rh-temporalpole	iNPH	3	±	17		7	±	15		46	±	43		88	±	60		144	±	57		82	±	79		2	±	18		<0.001
2034	ctx-rh-transversetemporal	REF	-5	±	8	0.472	1	±	20	0.614	47	±	74	0.916	76	±	87	0.971	43	±	54	0.020	40				-9	±	17	0.676	0.026
2034	ctx-rh-transversetemporal	iNPH	9	±	22		5	±	17		54	±	55		77	±	54		105	±	48		57	±	58		7	±	21		<0.001
<i>Some white matter regions</i>																															
3002	wm-lh-caudalanteriorcingulate	REF	-3	±	10	0.308	-6	±	14	0.489	0	±	24	0.821	-3	±	14	0.424	12	±	22	0.023	32				-7	±	18	0.541	0.005
3002	wm-lh-caudalanteriorcingulate	iNPH	2	±	19		-1	±	14		5	±	19		6	±	19		41	±	29		26	±	27		1	±	15		<0.001
3003	wm-lh-caudalmiddlefrontal	REF	-3	±	9	0.315	-6	±	15	0.487	-1	±	25	0.915	-7	±	12	0.629	6	±	21	0.974	16				-7	±	19	0.553	0.029
3003	wm-lh-caudalmiddlefrontal	iNPH	3	±	21		-1	±	15		-1	±	20		-7	±	14		7	±	21		18	±	6		1	±	17		<0.001
3005	wm-lh-cuneus	REF	0	±	9	0.365	-5	±	13	0.377	-2	±	20	0.997	0	±	15	0.730	21	±	31	0.763	42				-6	±	19	0.246	0.091
3005	wm-lh-cuneus	iNPH	3	±	14		0	±	10		1	±	16		-1	±	13		26	±	23		30	±	24		4	±	13		<0.001
3006	wm-lh-entorhinal	REF	-2	±	8	0.428	-5	±	14	0.580	2	±	24	0.993	1	±	17	0.646	27	±	33	0.114	38				-8	±	19	0.594	0.016
3006	wm-lh-entorhinal	iNPH	2	±	23		-1	±	16		5	±	20		9	±	22		54	±	34		35	±	32		2	±	18		<0.001
3032	wm-lh-frontalpole	REF	-2	±	10	0.586	-6	±	14	0.618	-5	±	19	0.795	-2	±	8	0.599	39	±	39	0.359	51				-4	±	19	0.431	<0.001
3032	wm-lh-frontalpole	iNPH	-1	±	16		-3	±	12		-5	±	15		-4	±	14		56	±	36		44	±	28		2	±	13		<0.001
3007	wm-lh-fusiform	REF	-1	±	8	0.421	-5	±	14	0.568	0	±	23	0.901	-3	±	17	0.848	11	±	24	0.111	30				-8	±	18	0.386	0.016
3007	wm-lh-fusiform	iNPH	2	±	22		-1	±	16		4	±	20		1	±	16		31	±	26		28	±	22		3	±	16		<0.001
3008	wm-lh-inferiorparietal	REF	-2	±	8	0.289	-6	±	14	0.321	-2	±	21	0.778	-6	±	12	0.891	7	±	20	0.723	25				-8	±	19	0.306	0.025
3008	wm-lh-inferiorparietal	iNPH	3	±	21		1	±	15		4	±	20		-2	±	14		11	±	19		26	±	17		4	±	15		<0.001
3009	wm-lh-inferiortemporal	REF	-3	±	8	0.350	-5	±	14	0.639	1	±	25	0.827	-5	±	15	0.617	10	±	26	0.876	26				-8	±	18	0.500	0.008
3009	wm-lh-inferiortemporal	iNPH	1	±	25		-2	±	18		1	±	24		-6	±	16		13	±	22		28	±	17		2	±	17		<0.001
3035	wm-lh-insula	REF	-2	±	8	0.433	-6	±	14	0.547	1	±	25	0.803	-1	±	17	0.837	13	±	24	0.154	35				-7	±	18	0.569	0.038
3035	wm-lh-insula	iNPH	2	±	23		-1	±	16		1	±	20		-1	±	16		32	±	27		27	±	25		1	±	17		<0.001

3010	wm-lh-isthmuscingulate	REF	-2	±	9	0.496	-5	±	14	0.361	1	±	23	0.589	0	±	19	0.309	12	±	23	0.044	36		-8	±	18	0.378	0.026	
3010	wm-lh-isthmuscingulate	iNPH	2	±	18		1	±	13		9	±	20		11	±	19		38	±	27		25	±	27	4	±	16		<0.001
3011	wm-lh-lateraloccipital	REF	1	±	7	0.330	-3	±	13	0.516	-3	±	20	0.650	-4	±	11	0.936	8	±	17	0.740	24		-6	±	19	0.236	0.020	
3011	wm-lh-lateraloccipital	iNPH	3	±	16		0	±	12		4	±	16		-1	±	13		11	±	17		26	±	16	6	±	13		<0.001
3012	wm-lh-lateralorbitofrontal	REF	-2	±	9	0.390	-6	±	14	0.490	0	±	23	0.770	0	±	15	0.636	21	±	27	0.156	42		-6	±	19	0.571	0.004	
3012	wm-lh-lateralorbitofrontal	iNPH	2	±	19		-2	±	13		0	±	17		-1	±	14		41	±	27		31	±	27	0	±	15		<0.001
3013	wm-lh-lingual	REF	0	±	8	0.457	-4	±	13	0.499	0	±	21	0.547	0	±	17	0.296	17	±	27	0.082	34		-7	±	18	0.294	0.045	
3013	wm-lh-lingual	iNPH	3	±	17		0	±	13		8	±	16		11	±	20		41	±	29		29	±	26	5	±	14		<0.001
3014	wm-lh-medialorbitofrontal	REF	-3	±	8	0.462	-6	±	13	0.413	2	±	22	0.890	6	±	17	0.854	27	±	31	0.142	46		-6	±	19	0.523	0.005	
3014	wm-lh-medialorbitofrontal	iNPH	2	±	17		-1	±	13		3	±	16		9	±	20		50	±	31		32	±	29	1	±	15		<0.001
3015	wm-lh-middletemporal	REF	-3	±	9	0.306	-6	±	15	0.609	0	±	26	0.769	-6	±	16	0.507	14	±	30	0.999	37		-8	±	18	0.514	0.017	
3015	wm-lh-middletemporal	iNPH	2	±	26		-2	±	18		0	±	22		-8	±	15		15	±	26		28	±	17	2	±	18		<0.001
3017	wm-lh-paracentral	REF	-3	±	8	0.239	-6	±	14	0.360	-1	±	24	0.956	-5	±	13	0.633	11	±	23	0.955	19		-7	±	19	0.577	0.023	
3017	wm-lh-paracentral	iNPH	3	±	19		0	±	13		1	±	20		-6	±	13		12	±	23		22	±	16	1	±	16		<0.001
3016	wm-lh-parahippocampal	REF	-1	±	10	0.591	-4	±	15	0.606	9	±	29	0.875	14	±	33	0.701	32	±	36	0.148	34		-8	±	18	0.793	0.014	
3016	wm-lh-parahippocampal	iNPH	3	±	23		-1	±	16		11	±	20		23	±	29		60	±	34		29	±	29	3	±	17		<0.001
3018	wm-lh-parsopercularis	REF	-3	±	9	0.432	-6	±	15	0.595	-1	±	25	0.753	-4	±	14	0.477	17	±	28	0.499	30		-7	±	19	0.570	0.012	
3018	wm-lh-parsopercularis	iNPH	2	±	23		-2	±	17		-2	±	21		-7	±	14		27	±	28		25	±	16	1	±	17		<0.001
3019	wm-lh-parsorbitalis	REF	-2	±	10	0.559	-6	±	15	0.724	-1	±	24	0.677	-1	±	15	0.334	31	±	36	0.632	43		-5	±	20	0.737	0.006	
3019	wm-lh-parsorbitalis	iNPH	-1	±	20		-4	±	13		-3	±	20		-5	±	14		39	±	32		37	±	28	0	±	15		<0.001
3020	wm-lh-parstriangularis	REF	-2	±	10	0.587	-6	±	15	0.679	-2	±	23	0.798	-4	±	12	0.556	16	±	25	0.136	34		-6	±	19	0.564	0.003	
3020	wm-lh-parstriangularis	iNPH	0	±	22		-3	±	15		-2	±	20		-6	±	14		35	±	28		32	±	25	0	±	17		<0.001
3021	wm-lh-pericalcarine	REF	0	±	8	0.420	-4	±	13	0.353	-1	±	20	0.370	0	±	15	0.261	17	±	27	0.089	39		-6	±	18	0.206	0.025	
3021	wm-lh-pericalcarine	iNPH	3	±	13		2	±	11		10	±	14		10	±	18		41	±	30		38	±	33	6	±	13		<0.001
3022	wm-lh-postcentral	REF	-4	±	8	0.284	-7	±	15	0.368	0	±	25	0.833	-4	±	16	0.498	18	±	34	0.764	26		-8	±	19	0.477	0.023	
3022	wm-lh-postcentral	iNPH	3	±	22		-1	±	16		0	±	22		-6	±	15		23	±	31		28	±	15	2	±	18		<0.001
3023	wm-lh-posteriorcingulate	REF	-2	±	9	0.291	-6	±	14	0.419	1	±	25	0.794	-3	±	15	0.685	11	±	21	0.067	28		-8	±	18	0.492	0.006	
3023	wm-lh-posteriorcingulate	iNPH	3	±	19		0	±	13		6	±	21		3	±	16		34	±	28		26	±	26	2	±	16		<0.001
3024	wm-lh-precentral	REF	-4	±	8	0.291	-7	±	14	0.418	-1	±	25	0.918	-6	±	13	0.602	10	±	24	0.980	19		-8	±	19	0.552	0.030	
3024	wm-lh-precentral	iNPH	3	±	22		-1	±	16		0	±	21		-7	±	15		11	±	25		21	±	9	1	±	17		<0.001
3025	wm-lh-precuneus	REF	-1	±	8	0.311	-5	±	13	0.351	-1	±	22	0.891	-3	±	14	0.874	12	±	23	0.317	38		-7	±	19	0.420	0.035	
3025	wm-lh-precuneus	iNPH	3	±	17		0	±	12		3	±	19		-2	±	13		24	±	24		28	±	22	3	±	15		<0.001
3026	wm-lh-rostralanteriorcingulate	REF	-3	±	10	0.342	-6	±	14	0.344	0	±	23	0.744	0	±	16	0.183	17	±	25	0.009	39		-7	±	19	0.547	0.004	
3026	wm-lh-rostralanteriorcingulate	iNPH	2	±	17		0	±	13		6	±	18		14	±	20		52	±	28		30	±	27	1	±	15		<0.001
3027	wm-lh-rostralmiddlefrontal	REF	-2	±	9	0.472	-6	±	14	0.643	-2	±	22	0.814	-6	±	11	0.361	10	±	20	0.950	22		-5	±	20	0.662	0.005	
3027	wm-lh-rostralmiddlefrontal	iNPH	0	±	20		-3	±	14		-3	±	18		-9	±	13		11	±	21		28	±	17	0	±	16		<0.001
3028	wm-lh-superiorfrontal	REF	-3	±	9	0.310	-6	±	14	0.510	-2	±	23	0.818	-5	±	12	0.479	12	±	23	0.906	25		-6	±	19	0.665	0.002	
3028	wm-lh-superiorfrontal	iNPH	2	±	18		-2	±	13		-2	±	18		-7	±	13		14	±	20		27	±	15	0	±	16		<0.001
3029	wm-lh-superiorparietal	REF	-2	±	9	0.301	-6	±	14	0.300	-2	±	22	0.939	-5	±	11	0.689	9	±	23	0.960	23		-7	±	19	0.396	0.049	
3029	wm-lh-superiorparietal	iNPH	3	±	18		1	±	12		1	±	19		-5	±	13		10	±	20		23	±	11	3	±	15		<0.001

3030	wm-lh-superiortemporal	REF	-3	±	9	0.424	-6	±	15	0.576	1	±	25	0.806	-2	±	18	0.746	18	±	31	0.269	41		-8	±	19	0.562	0.026	
3030	wm-lh-superiortemporal	iNPH	2	±	25		-2	±	18		1	±	22		-2	±	17		36	±	31		32	±	27	2	±	18		<0.001
3031	wm-lh-supramarginal	REF	-3	±	8	0.344	-6	±	14	0.443	0	±	25	0.904	-5	±	14	0.648	14	±	28	0.548	32		-8	±	19	0.483	0.037	
3031	wm-lh-supramarginal	iNPH	3	±	24		-1	±	17		1	±	22		-6	±	15		22	±	26		35	±	27	2	±	18		<0.001
3033	wm-lh-temporalpole	REF	-2	±	8	0.580	-5	±	14	0.612	2	±	23	0.657	6	±	20	0.695	43	±	45	0.368	53		-7	±	19	0.611	0.031	
3033	wm-lh-temporalpole	iNPH	2	±	23		-1	±	16		1	±	19		5	±	20		63	±	43		42	±	44	2	±	18		<0.001
3034	wm-lh-transversetemporal	REF	-3	±	9	0.455	-6	±	15	0.536	4	±	28	0.721	6	±	27	0.608	23	±	34	0.236	37		-8	±	19	0.681	0.077	
3034	wm-lh-transversetemporal	iNPH	3	±	25		-1	±	18		2	±	22		3	±	18		43	±	30		29	±	27	3	±	18		<0.001
4002	wm-rh-caudalanteriorcingulate	REF	-3	±	9	0.293	-6	±	14	0.440	0	±	24	0.744	-2	±	15	0.339	13	±	21	0.005	33		-8	±	18	0.469	0.003	
4002	wm-rh-caudalanteriorcingulate	iNPH	2	±	17		-1	±	12		5	±	18		8	±	20		46	±	27		25	±	30	1	±	14		<0.001
4003	wm-rh-caudalmiddlefrontal	REF	-4	±	8	0.155	-6	±	14	0.329	-1	±	24	0.923	-6	±	13	0.560	6	±	23	0.929	21		-8	±	18	0.585	0.046	
4003	wm-rh-caudalmiddlefrontal	iNPH	5	±	19		0	±	14		0	±	21		-8	±	13		7	±	21		18	±	9	0	±	16		<0.001
4005	wm-rh-cuneus	REF	0	±	9	0.295	-5	±	13	0.296	-2	±	20	0.997	-1	±	14	0.763	21	±	33	0.721	40		-6	±	19	0.233	0.108	
4005	wm-rh-cuneus	iNPH	3	±	12		0	±	9		2	±	15		-1	±	13		26	±	25		30	±	26	4	±	13		<0.001
4006	wm-rh-entorhinal	REF	-3	±	8	0.234	-6	±	13	0.363	2	±	26	0.911	2	±	19	0.714	27	±	34	0.060	36		-9	±	17	0.536	0.003	
4006	wm-rh-entorhinal	iNPH	4	±	18		-1	±	14		4	±	20		7	±	22		59	±	34		33	±	33	0	±	15		<0.001
4032	wm-rh-frontalpole	REF	-3	±	8	0.413	-7	±	13	0.332	-5	±	17	0.965	-3	±	9	0.504	35	±	32	0.184	61		-4	±	20	0.398	<0.001	
4032	wm-rh-frontalpole	iNPH	0	±	13		-2	±	9		-4	±	15		-6	±	11		57	±	34		45	±	37	2	±	12		<0.001
4007	wm-rh-fusiform	REF	-3	±	8	0.180	-6	±	14	0.303	0	±	25	0.845	-2	±	18	0.913	11	±	25	0.061	25		-9	±	17	0.277	0.025	
4007	wm-rh-fusiform	iNPH	5	±	18		1	±	14		5	±	19		0	±	14		34	±	26		26	±	26	4	±	16		<0.001
4008	wm-rh-inferiorparietal	REF	-2	±	9	0.115	-7	±	14	0.183	-2	±	23	0.814	-6	±	13	0.958	6	±	21	0.511	13		-8	±	18	0.340	0.031	
4008	wm-rh-inferiorparietal	iNPH	6	±	18		2	±	13		4	±	21		-3	±	13		12	±	21		17	±	9	3	±	16		<0.001
4009	wm-rh-inferiortemporal	REF	-4	±	8	0.106	-7	±	14	0.287	-1	±	26	0.982	-6	±	16	0.734	8	±	25	0.509	19		-9	±	18	0.319	0.004	
4009	wm-rh-inferiortemporal	iNPH	6	±	20		1	±	17		2	±	22		-6	±	13		15	±	22		24	±	17	3	±	17		<0.001
4035	wm-rh-insula	REF	-4	±	8	0.220	-7	±	14	0.335	1	±	26	0.922	-2	±	17	0.956	11	±	24	0.070	30		-8	±	18	0.455	0.024	
4035	wm-rh-insula	iNPH	4	±	19		0	±	15		2	±	21		0	±	16		35	±	28		26	±	26	2	±	17		<0.001
4010	wm-rh-isthmuscingulate	REF	-2	±	9	0.465	-5	±	14	0.409	2	±	24	0.747	1	±	21	0.429	14	±	24	0.062	31		-7	±	18	0.465	0.020	
4010	wm-rh-isthmuscingulate	iNPH	3	±	16		0	±	12		8	±	19		10	±	19		40	±	27		24	±	28	3	±	15		<0.001
4011	wm-rh-lateraloccipital	REF	0	±	7	0.163	-5	±	13	0.263	-4	±	21	0.678	-5	±	11	0.829	6	±	18	0.718	15		-7	±	18	0.135	0.019	
4011	wm-rh-lateraloccipital	iNPH	5	±	13		1	±	11		3	±	16		-2	±	12		9	±	18		13	±	8	6	±	13		<0.001
4012	wm-rh-lateralorbitofrontal	REF	-5	±	8	0.177	-7	±	14	0.252	0	±	23	0.931	0	±	15	0.764	19	±	25	0.064	43		-8	±	18	0.361	0.001	
4012	wm-rh-lateralorbitofrontal	iNPH	4	±	17		0	±	12		1	±	19		-1	±	14		43	±	28		33	±	33	1	±	14		<0.001
4013	wm-rh-lingual	REF	0	±	8	0.374	-4	±	13	0.394	1	±	21	0.852	3	±	21	0.798	19	±	32	0.127	35		-7	±	18	0.259	0.108	
4013	wm-rh-lingual	iNPH	4	±	15		1	±	12		6	±	15		7	±	15		42	±	25		27	±	26	5	±	13		<0.001
4014	wm-rh-medialorbitofrontal	REF	-4	±	8	0.237	-7	±	13	0.289	1	±	22	0.964	5	±	16	0.829	26	±	30	0.077	48		-7	±	18	0.424	0.006	
4014	wm-rh-medialorbitofrontal	iNPH	3	±	15		-1	±	11		4	±	16		8	±	19		53	±	30		34	±	32	1	±	14		<0.001
4015	wm-rh-midtemporal	REF	-5	±	9	0.089	-7	±	14	0.256	-1	±	27	0.969	-7	±	16	0.803	11	±	30	0.733	19		-9	±	18	0.324	0.002	
4015	wm-rh-midtemporal	iNPH	7	±	21		1	±	16		2	±	24		-6	±	13		16	±	26		19	±	11	4	±	18		<0.001
4017	wm-rh-paracentral	REF	-3	±	8	0.228	-7	±	14	0.299	-1	±	23	0.973	-6	±	13	0.868	8	±	20	0.543	17		-7	±	18	0.503	0.005	

4017	wm-rh-paracentral	iNPH	3	±	17		0	±	13		1	±	20		-5	±	13		15	±	23		23	±	18		1	±	16		<0.001
4016	wm-rh-parahippocampal	REF	-3	±	9	0.426	-5	±	15	0.402	11	±	31	0.892	15	±	37	0.813	30	±	37	0.116	26			-9	±	18	0.774	0.022	
4016	wm-rh-parahippocampal	iNPH	5	±	20		0	±	15		11	±	22		21	±	25		60	±	32		26	±	30	3	±	16		<0.001	
4018	wm-rh-parsopercularis	REF	-5	±	8	0.178	-7	±	14	0.347	0	±	25	0.834	-5	±	16	0.621	12	±	27	0.207	34			-9	±	18	0.499	0.007	
4018	wm-rh-parsopercularis	iNPH	5	±	20		0	±	15		0	±	22		-6	±	14		29	±	27		24	±	19	1	±	17		<0.001	
4019	wm-rh-parsorbitalis	REF	-4	±	7	0.166	-8	±	13	0.248	0	±	23	0.860	-1	±	15	0.352	26	±	32	0.256	44			-7	±	18	0.538	0.003	
4019	wm-rh-parsorbitalis	iNPH	4	±	17		-1	±	12		-1	±	19		-6	±	12		43	±	29		36	±	32	1	±	14		<0.001	
4020	wm-rh-parstriangularis	REF	-5	±	7	0.172	-8	±	14	0.259	0	±	24	0.889	-4	±	14	0.550	15	±	27	0.127	37			-8	±	18	0.395	0.004	
4020	wm-rh-parstriangularis	iNPH	4	±	19		0	±	15		0	±	20		-7	±	13		36	±	28		31	±	32	1	±	15		<0.001	
4021	wm-rh-pericalcarine	REF	-1	±	8	0.365	-5	±	13	0.332	-2	±	20	0.725	-1	±	15	0.758	16	±	26	0.159	40			-7	±	18	0.162	0.045	
4021	wm-rh-pericalcarine	iNPH	2	±	12		0	±	9		5	±	15		3	±	15		35	±	27		30	±	27	5	±	13		<0.001	
4022	wm-rh-postcentral	REF	-5	±	8	0.157	-7	±	14	0.274	1	±	26	0.749	-2	±	19	0.451	18	±	35	0.764	27			-8	±	18	0.561	0.014	
4022	wm-rh-postcentral	iNPH	5	±	20		0	±	15		0	±	22		-6	±	14		23	±	29		24	±	13	1	±	18		<0.001	
4023	wm-rh-posteriorcingulate	REF	-3	±	9	0.301	-6	±	14	0.423	1	±	24	0.881	-3	±	15	0.757	11	±	22	0.063	27			-8	±	18	0.482	0.003	
4023	wm-rh-posteriorcingulate	iNPH	3	±	18		-1	±	12		5	±	20		1	±	15		34	±	26		24	±	25	1	±	15		<0.001	
4024	wm-rh-precentral	REF	-4	±	8	0.152	-7	±	14	0.269	0	±	25	0.866	-6	±	14	0.594	9	±	25	0.918	19			-8	±	18	0.546	0.017	
4024	wm-rh-precentral	iNPH	5	±	19		0	±	14		0	±	22		-7	±	14		11	±	23		19	±	10	0	±	17		<0.001	
4025	wm-rh-precuneus	REF	-2	±	9	0.280	-6	±	14	0.249	-1	±	22	0.907	-3	±	13	0.989	13	±	24	0.204	33			-7	±	18	0.273	0.019	
4025	wm-rh-precuneus	iNPH	3	±	15		1	±	11		3	±	18		-2	±	13		29	±	26		28	±	22	3	±	14		<0.001	
4026	wm-rh-rostralanteriorcingulate	REF	-4	±	9	0.278	-7	±	13	0.303	-1	±	23	0.741	0	±	16	0.329	16	±	21	0.003	44			-7	±	18	0.434	0.001	
4026	wm-rh-rostralanteriorcingulate	iNPH	3	±	15		-1	±	12		4	±	16		9	±	18		52	±	29		28	±	30	0	±	13		<0.001	
4027	wm-rh-rostralmiddlefrontal	REF	-4	±	8	0.214	-6	±	14	0.387	-2	±	22	0.902	-6	±	11	0.424	9	±	20	0.660	32			-6	±	19	0.511	0.002	
4027	wm-rh-rostralmiddlefrontal	iNPH	3	±	17		-1	±	13		-1	±	18		-9	±	12		14	±	20		27	±	21	1	±	15		<0.001	
4028	wm-rh-superiorfrontal	REF	-4	±	9	0.244	-6	±	14	0.409	-3	±	22	0.903	-5	±	12	0.576	10	±	22	0.520	29			-7	±	18	0.562	0.008	
4028	wm-rh-superiorfrontal	iNPH	3	±	17		-1	±	13		-2	±	18		-7	±	13		17	±	20		25	±	15	0	±	15		<0.001	
4029	wm-rh-superiorparietal	REF	-2	±	9	0.207	-6	±	14	0.226	-1	±	22	0.989	-5	±	11	0.829	9	±	23	0.887	16			-7	±	18	0.348	0.037	
4029	wm-rh-superiorparietal	iNPH	4	±	15		1	±	11		1	±	19		-4	±	13		8	±	19		18	±	8	3	±	15		<0.001	
4030	wm-rh-superiortemporal	REF	-5	±	9	0.150	-7	±	14	0.299	1	±	27	0.876	-1	±	20	0.631	20	±	35	0.191	28			-9	±	18	0.437	0.004	
4030	wm-rh-superiortemporal	iNPH	6	±	21		0	±	16		2	±	23		-3	±	15		41	±	31		28	±	25	3	±	18		<0.001	
4031	wm-rh-supramarginal	REF	-4	±	9	0.160	-7	±	14	0.288	0	±	26	0.895	-5	±	16	0.669	13	±	29	0.401	25			-8	±	18	0.483	0.011	
4031	wm-rh-supramarginal	iNPH	6	±	20		1	±	16		1	±	22		-5	±	13		24	±	26		28	±	21	2	±	18		<0.001	
4033	wm-rh-temporalpole	REF	-4	±	8	0.233	-7	±	13	0.294	3	±	26	0.625	4	±	17	0.742	38	±	38	0.184	49			-8	±	19	0.500	<0.001	
4033	wm-rh-temporalpole	iNPH	3	±	17		0	±	13		-1	±	18		3	±	18		62	±	35		42	±	37	1	±	15		<0.001	
4034	wm-rh-transversetemporal	REF	-4	±	10	0.192	-7	±	15	0.315	4	±	31	0.792	6	±	27	0.622	22	±	36	0.133	26			-9	±	18	0.533	0.022	
4034	wm-rh-transversetemporal	iNPH	7	±	21		1	±	16		3	±	23		3	±	18		46	±	31		24	±	22	3	±	19		<0.001	
Other selected brain regions																															
85	Optic-Chiasm	REF	-1	±	14	0.968	22	±	34	0.471	85	±	79	0.384	90	±	79	0.150	33	±	40	0.039	39			-15	±	19	0.528	<0.001	
85	Optic-Chiasm	iNPH	8	±	18		33	±	28		120	±	87		142	±	66		96	±	49		41	±	51	2	±	15		<0.001	

16	Brain-Stem	REF	0	±	8	0.528	-2	±	14	0.506	11	±	27	0.919	12	±	26	0.923	17	±	23	0.402	28			-8	±	18	0.668	0.009
16	Brain-Stem	iNPH	4	±	19		3	±	15		13	±	21		13	±	19		29	±	24		17	±	20	3	±	16		<0.001
255	CC_Anterior	REF	-2	±	9	0.459	-5	±	14	0.426	6	±	26	0.628	7	±	21	0.100	13	±	22	0.001	33			-7	±	18	0.676	0.002
255	CC_Anterior	iNPH	2	±	17		0	±	13		14	±	21		28	±	28		54	±	28		23	±	28	0	±	14		<0.001
253	CC_Central	REF	-2	±	9	0.926	-5	±	15	0.541	9	±	30	0.211	9	±	32	0.051	12	±	21	0.001	26			-9	±	17	0.925	0.001
253	CC_Central	iNPH	0	±	20		0	±	14		29	±	29		46	±	41		70	±	45		31	±	38	1	±	15		<0.001
254	CC_Mid_Anterior	REF	-2	±	9	0.536	-5	±	15	0.390	6	±	27	0.246	6	±	25	0.066	11	±	22	0.001	29			-8	±	18	0.800	0.002
254	CC_Mid_Anterior	iNPH	2	±	19		1	±	14		25	±	33		38	±	41		66	±	41		38	±	47	3	±	16		<0.001
252	CC_Mid_Posterior	REF	-2	±	10	0.913	-1	±	21	0.844	24	±	46	0.792	27	±	54	0.850	15	±	25	0.038	43			-9	±	18	0.639	0.002
252	CC_Mid_Posterior	iNPH	2	±	20		1	±	15		20	±	24		34	±	31		60	±	35		25	±	29	3	±	15		<0.001
251	CC_Posterior	REF	-1	±	10	0.526	-5	±	14	0.363	6	±	25	0.411	8	±	24	0.215	17	±	25	0.009	35			-8	±	19	0.499	0.013
251	CC_Posterior	iNPH	2	±	19		1	±	13		18	±	26		28	±	34		61	±	42		36	±	45	3	±	16		<0.001
13, 52	Pallidum	REF	-2	±	8	0.277	-6	±	14	0.483	0	±	25	0.805	-6	±	13	0.701	2	±	17	0.910	16			-8	±	18	0.460	0.017
13, 52	Pallidum	iNPH	3	±	20		-1	±	15		0	±	20		-6	±	13		3	±	19		6	±	10	1	±	16		<0.001
12, 51	Putamen	REF	-4	±	8	0.202	-6	±	14	0.395	0	±	25	0.842	-6	±	13	0.683	7	±	19	0.439	34			-8	±	17	0.359	0.007
12, 51	Putamen	iNPH	4	±	21		0	±	15		0	±	20		-6	±	13		14	±	20		19	±	18	2	±	16		<0.001
10, 49	Thalamus-Proper	REF	-2	±	8	0.292	-4	±	15	0.341	5	±	26	0.853	2	±	18	0.540	11	±	21	0.075	24			-8	±	18	0.473	0.008
10, 49	Thalamus-Proper	iNPH	5	±	21		2	±	16		10	±	22		10	±	17		33	±	27		20	±	24	3	±	17		<0.001
11, 50	Caudate	REF	-4	±	8	0.351	-6	±	14	0.305	2	±	27	0.401	-1	±	19	0.022	5	±	19	<0.001	46			-8	±	17	0.407	0.005
11, 50	Caudate	iNPH	4	±	20		1	±	15		13	±	21		28	±	29		62	±	42		41	±	46	2	±	17		<0.001
26, 58	Accumbens-area	REF	-4	±	8	0.278	-6	±	14	0.233	5	±	26	0.454	11	±	22	0.207	31	±	31	0.012	44			-8	±	17	0.385	<0.001
26, 58	Accumbens-area	iNPH	5	±	19		2	±	14		16	±	21		27	±	26		74	±	38		41	±	41	4	±	16		<0.001
18, 54	Amygdala	REF	-3	±	7	0.359	-3	±	14	0.356	14	±	28	0.861	21	±	28	0.532	37	±	37	0.050	34			-8	±	17	0.747	0.004
18, 54	Amygdala	iNPH	5	±	23		3	±	16		19	±	25		33	±	35		76	±	41		46	±	49	4	±	16		<0.001
17, 53	Hippocampus	REF	-1	±	7	0.799	2	±	17	0.283	35	±	45	0.246	48	±	55	0.188	39	±	39	0.008	31			-8	±	17	0.757	0.005
17, 53	Hippocampus	iNPH	5	±	23		10	±	18		65	±	54		87	±	62		100	±	45		47	±	52	5	±	17		<0.001
CSF regions																														
24	CSF	ref	16	±	20	0.404	101	±	116	0.883	354	±	309	0.511	500	±	421	0.152	157	±	164	<0.001	177			-8	±	17	0.433	<0.001
24	CSF	inph	23	±	29		94	±	80		448	±	346		755	±	323		719	±	363		256	±	304	2	±	16		<0.001
14	3rd-Ventricle	ref	5	±	13	0.744	332	±	823	0.386	493	±	915	0.019	467	±	898	0.007	146	±	221	0.025	183			-10	±	16	0.418	0.011
14	3rd-Ventricle	inph	96	±	73		642	±	688		1648	±	1199		1647	±	909		1156	±	592		493	±	576	1	±	21		<0.001
15	4th-Ventricle	ref	359	±	457	0.971	883	±	1347	0.290	1056	±	1285	0.006	936	±	1167	0.003	266	±	295	0.080	215			-5	±	24	0.166	0.009
15	4th-Ventricle	inph	676	±	1236		1520	±	1202		2794	±	1347		2430	±	842		1234	±	494		502	±	589	0	±	15		<0.001
5, 44	Inf-Lat-Vent	ref	-3	±	6	0.575	39	±	122	0.319	74	±	159	0.002	66	±	168	<0.001	26	±	54	<0.001	13			-14	±	17	0.350	<0.001
5, 44	Inf-Lat-Vent	inph	8	±	32		92	±	103		880	±	760		1157	±	747		1025	±	591		394	±	502	1	±	19		<0.001
4, 43	Lateral-Ventricle	ref	-10	±	8	0.428	342	±	957	0.895	641	±	1415	0.023	656	±	1438	0.002	173	±	325	0.001	228			-10	±	12	0.339	0.052
4, 43	Lateral-Ventricle	inph	11	±	28		296	±	350		2598	±	2179		3041	±	1808		2272	±	1217		869	±	1104	-7	±	19		<0.001

Data presented as mean ± standard deviation. *Sign.: Significant differences over time was determined by by a linear mixed model for repeated measurements SegID – FreeSurfer segmentation identity; Ctx - Cortex; lh – left hemisphere; rh – right hemisphere; wm – white matter; CC – corpus callosum; CSF – cerebrospinal fluid.

Table S5. Differences in normalized T1 signals in various brain regions before and 4 weeks after intrathecal gadobutrol in REF and iNPH individuals

SegID	StructName	REF group							iNPH group							Pre: REF vs. iNPH		4 weeks: REF vs. iNPH	
		Pre			4 weeks			*Sign	Pre			4 weeks			p *Sign	*Sign	*Sign		
<i>Some cortical grey matter regions</i>																			
1002	ctx-lh-caudalanteriorcingulate	1.5	±	0.3	1.4	±	0.2	0.502	1.4	±	0.3	1.4	±	0.2	0.751	0.582	0.970		
1003	ctx-lh-caudalmiddlefrontal	1.3	±	0.3	1.2	±	0.2	0.319	1.4	±	0.3	1.4	±	0.2	0.993	0.463	0.130		
1005	ctx-lh-cuneus	1.8	±	0.4	1.7	±	0.3	0.441	1.5	±	0.3	1.6	±	0.2	0.350	0.110	0.295		
1006	ctx-lh-entorhinal	1.6	±	0.3	1.5	±	0.2	0.261	1.5	±	0.4	1.4	±	0.1	0.978	0.539	0.873		
1032	ctx-lh-frontalpole	1	±	0.2	1	±	0.2	0.772	1.1	±	0.3	1.1	±	0.1	0.653	0.503	0.375		
1007	ctx-lh-fusiform	1.6	±	0.3	1.5	±	0.3	0.285	1.5	±	0.4	1.5	±	0.1	0.902	0.565	0.992		
1008	ctx-lh-inferiorparietal	1.4	±	0.3	1.3	±	0.2	0.262	1.4	±	0.3	1.4	±	0.2	0.603	0.712	0.428		
1009	ctx-lh-inferiortemporal	1.4	±	0.3	1.3	±	0.3	0.236	1.3	±	0.4	1.3	±	0.1	0.993	0.785	0.729		
1035	ctx-lh-insula	1.5	±	0.3	1.4	±	0.3	0.348	1.4	±	0.3	1.4	±	0.2	0.971	0.433	0.769		
1010	ctx-lh-isthmuscingulate	2.1	±	0.4	1.9	±	0.3	0.284	1.8	±	0.4	1.8	±	0.2	0.639	0.162	0.480		
1011	ctx-lh-lateraloccipital	1.5	±	0.3	1.4	±	0.2	0.481	1.4	±	0.3	1.4	±	0.2	0.160	0.349	0.884		
1012	ctx-lh-lateralorbitofrontal	1.3	±	0.3	1.2	±	0.2	0.298	1.3	±	0.3	1.2	±	0.1	0.795	0.630	0.935		
1013	ctx-lh-lingual	1.9	±	0.4	1.8	±	0.3	0.485	1.6	±	0.4	1.7	±	0.2	0.345	0.243	0.462		
1014	ctx-lh-medialorbitofrontal	1.3	±	0.3	1.2	±	0.2	0.391	1.3	±	0.3	1.3	±	0.2	0.753	0.760	0.873		
1015	ctx-lh-middletemporal	1.3	±	0.3	1.2	±	0.3	0.235	1.3	±	0.4	1.3	±	0.2	0.968	0.842	0.633		
1017	ctx-lh-paracentral	1.7	±	0.3	1.6	±	0.3	0.311	1.6	±	0.3	1.6	±	0.2	0.825	0.558	0.675		
1016	ctx-lh-parahippocampal	1.8	±	0.4	1.7	±	0.3	0.299	1.7	±	0.4	1.7	±	0.2	0.853	0.457	0.727		
1018	ctx-lh-parsopercularis	1.4	±	0.3	1.3	±	0.2	0.310	1.3	±	0.3	1.3	±	0.2	0.964	0.845	0.596		
1019	ctx-lh-parsorbitalis	1.1	±	0.2	1	±	0.2	0.407	1.2	±	0.3	1.1	±	0.2	0.867	0.777	0.315		
1020	ctx-lh-parstriangularis	1.2	±	0.3	1.2	±	0.2	0.355	1.3	±	0.3	1.3	±	0.1	0.904	0.770	0.285		
1021	ctx-lh-pericalcarine	1.9	±	0.4	1.8	±	0.3	0.470	1.6	±	0.3	1.7	±	0.2	0.199	0.070	0.166		
1022	ctx-lh-postcentral	1.4	±	0.3	1.3	±	0.3	0.244	1.5	±	0.3	1.5	±	0.2	0.929	0.868	0.246		
1023	ctx-lh-posteriorcingulate	1.7	±	0.3	1.6	±	0.3	0.265	1.5	±	0.3	1.5	±	0.2	0.931	0.246	0.727		
1024	ctx-lh-precentral	1.5	±	0.3	1.4	±	0.3	0.294	1.5	±	0.4	1.5	±	0.2	0.947	0.834	0.320		
1025	ctx-lh-precuneus	1.7	±	0.3	1.6	±	0.2	0.332	1.6	±	0.3	1.6	±	0.2	0.678	0.215	0.714		
1026	ctx-lh-rostralanteriorcingulate	1.4	±	0.3	1.3	±	0.2	0.375	1.3	±	0.3	1.3	±	0.2	0.657	0.552	0.909		
1027	ctx-lh-rostralmiddlefrontal	1.1	±	0.2	1.1	±	0.2	0.446	1.2	±	0.3	1.2	±	0.2	0.975	0.511	0.192		
1028	ctx-lh-superiorfrontal	1.2	±	0.2	1.2	±	0.2	0.449	1.3	±	0.3	1.4	±	0.2	0.851	0.446	0.151		
1029	ctx-lh-superiorparietal	1.4	±	0.3	1.3	±	0.2	0.314	1.4	±	0.3	1.5	±	0.2	0.560	0.940	0.218		
1030	ctx-lh-superiortemporal	1.4	±	0.3	1.3	±	0.3	0.288	1.4	±	0.4	1.3	±	0.2	0.834	0.855	0.715		
1031	ctx-lh-supramarginal	1.4	±	0.3	1.3	±	0.2	0.193	1.4	±	0.4	1.4	±	0.2	0.989	0.960	0.258		

1033	ctx-lh-temporalpole	1.3	± 0.3	1.2	± 0.2	0.241	1.2	± 0.4	1.2	± 0.1	0.801	0.758	0.617
1034	ctx-lh-transversetemporal	1.9	± 0.4	1.7	± 0.3	0.205	1.8	± 0.5	1.8	± 0.2	0.944	0.803	0.470
2002	ctx-rh-caudalanteriorcingulate	1.5	± 0.3	1.4	± 0.3	0.437	1.3	± 0.3	1.4	± 0.2	0.847	0.417	0.727
2003	ctx-rh-caudalmiddlefrontal	1.3	± 0.3	1.2	± 0.2	0.360	1.4	± 0.3	1.3	± 0.2	0.995	0.721	0.380
2005	ctx-rh-cuneus	1.8	± 0.4	1.7	± 0.3	0.467	1.5	± 0.3	1.5	± 0.2	0.397	0.071	0.198
2006	ctx-rh-entorhinal	1.6	± 0.3	1.5	± 0.3	0.245	1.4	± 0.3	1.4	± 0.2	0.838	0.231	0.453
2032	ctx-rh-frontalpole	1	± 0.2	1	± 0.2	0.847	1	± 0.3	1	± 0.2	0.726	0.607	0.613
2007	ctx-rh-fusiform	1.6	± 0.3	1.5	± 0.3	0.223	1.4	± 0.3	1.4	± 0.2	0.675	0.160	0.390
2008	ctx-rh-inferiorparietal	1.4	± 0.3	1.3	± 0.3	0.206	1.2	± 0.3	1.2	± 0.2	0.943	0.297	0.712
2009	ctx-rh-inferiortemporal	1.4	± 0.3	1.3	± 0.3	0.210	1.2	± 0.3	1.2	± 0.2	0.670	0.239	0.593
2035	ctx-rh-insula	1.5	± 0.3	1.4	± 0.3	0.273	1.3	± 0.3	1.3	± 0.2	0.774	0.217	0.551
2010	ctx-rh-isthmuscingulate	2	± 0.5	1.9	± 0.3	0.333	1.7	± 0.3	1.8	± 0.2	0.777	0.153	0.423
2011	ctx-rh-lateraloccipital	1.5	± 0.3	1.4	± 0.3	0.264	1.3	± 0.3	1.3	± 0.2	0.373	0.140	0.334
2012	ctx-rh-lateralorbitofrontal	1.4	± 0.3	1.3	± 0.2	0.260	1.3	± 0.3	1.3	± 0.2	0.624	0.388	0.865
2013	ctx-rh-lingual	1.9	± 0.4	1.8	± 0.3	0.430	1.6	± 0.3	1.6	± 0.2	0.418	0.109	0.174
2014	ctx-rh-medialorbitofrontal	1.3	± 0.3	1.2	± 0.2	0.350	1.2	± 0.3	1.2	± 0.2	0.617	0.673	0.921
2015	ctx-rh-middletemporal	1.3	± 0.3	1.2	± 0.3	0.228	1.2	± 0.3	1.1	± 0.2	0.885	0.271	0.529
2017	ctx-rh-paracentral	1.7	± 0.3	1.6	± 0.3	0.296	1.6	± 0.3	1.6	± 0.2	0.983	0.305	0.841
2016	ctx-rh-parahippocampal	1.9	± 0.4	1.7	± 0.3	0.281	1.6	± 0.4	1.6	± 0.2	0.703	0.163	0.433
2018	ctx-rh-parsopercularis	1.4	± 0.3	1.3	± 0.3	0.262	1.3	± 0.3	1.3	± 0.2	0.939	0.505	0.920
2019	ctx-rh-parsorbitalis	1.2	± 0.2	1.1	± 0.2	0.408	1.1	± 0.2	1.1	± 0.2	0.792	0.701	0.953
2020	ctx-rh-parstriangularis	1.3	± 0.3	1.2	± 0.3	0.292	1.2	± 0.3	1.2	± 0.2	0.941	0.771	0.867
2021	ctx-rh-pericalcarine	1.9	± 0.4	1.8	± 0.3	0.408	1.6	± 0.3	1.6	± 0.2	0.236	0.052	0.089
2022	ctx-rh-postcentral	1.5	± 0.3	1.4	± 0.3	0.250	1.4	± 0.3	1.4	± 0.2	0.922	0.645	0.853
2023	ctx-rh-posteriorcingulate	1.7	± 0.4	1.6	± 0.3	0.418	1.5	± 0.3	1.5	± 0.2	0.946	0.210	0.487
2024	ctx-rh-precentral	1.5	± 0.3	1.4	± 0.3	0.235	1.5	± 0.3	1.4	± 0.2	0.880	0.826	0.702
2025	ctx-rh-precuneus	1.7	± 0.4	1.6	± 0.3	0.355	1.5	± 0.3	1.5	± 0.2	0.719	0.183	0.525
2026	ctx-rh-rostralanteriorcingulate	1.4	± 0.3	1.3	± 0.2	0.309	1.2	± 0.2	1.3	± 0.2	0.520	0.347	0.906
2027	ctx-rh-rostralmiddlefrontal	1.1	± 0.2	1.1	± 0.2	0.503	1.2	± 0.3	1.2	± 0.2	0.925	0.784	0.546
2028	ctx-rh-superiorfrontal	1.2	± 0.2	1.2	± 0.2	0.544	1.3	± 0.3	1.3	± 0.2	0.908	0.625	0.337
2029	ctx-rh-superiorparietal	1.4	± 0.3	1.3	± 0.2	0.368	1.4	± 0.2	1.4	± 0.2	0.668	0.520	0.875
2030	ctx-rh-superiortemporal	1.5	± 0.3	1.4	± 0.3	0.263	1.3	± 0.3	1.3	± 0.2	0.866	0.337	0.613
2031	ctx-rh-supramarginal	1.4	± 0.3	1.3	± 0.3	0.245	1.3	± 0.3	1.3	± 0.2	0.928	0.595	0.932
2033	ctx-rh-temporalpole	1.3	± 0.3	1.2	± 0.2	0.348	1.2	± 0.3	1.1	± 0.2	0.985	0.449	0.602
2034	ctx-rh-transversetemporal	1.9	± 0.4	1.7	± 0.4	0.197	1.7	± 0.4	1.7	± 0.2	0.974	0.391	0.968

Some white matter regions

3002	wm-lh-caudalanteriorcingulate	3.2	±	0.6	3	±	0.5	0.346	2.7	±	0.5	2.7	±	0.4	0.948	0.116	0.340
3003	wm-lh-caudalmiddlefrontal	2.8	±	0.6	2.6	±	0.5	0.330	2.4	±	0.5	2.5	±	0.3	0.987	0.192	0.613
3005	wm-lh-cuneus	3	±	0.6	2.8	±	0.4	0.399	2.5	±	0.4	2.5	±	0.3	0.637	0.055	0.256
3006	wm-lh-entorhinal	2.7	±	0.6	2.5	±	0.4	0.304	2.4	±	0.6	2.3	±	0.2	0.798	0.262	0.383
3032	wm-lh-frontalpole	2.2	±	0.4	2.1	±	0.3	0.601	2	±	0.4	2	±	0.3	0.858	0.327	0.455
3007	wm-lh-fusiform	3.1	±	0.6	2.8	±	0.5	0.315	2.6	±	0.6	2.6	±	0.3	0.987	0.148	0.329
3008	wm-lh-inferiorparietal	3	±	0.5	2.7	±	0.4	0.315	2.6	±	0.5	2.6	±	0.2	0.814	0.144	0.586
3009	wm-lh-inferiortemporal	2.8	±	0.5	2.6	±	0.4	0.330	2.5	±	0.6	2.4	±	0.2	0.777	0.313	0.501
3035	wm-lh-insula	3	±	0.6	2.7	±	0.5	0.332	2.5	±	0.6	2.4	±	0.2	0.805	0.133	0.238
3010	wm-lh-isthmuscingulate	3.5	±	0.7	3.3	±	0.6	0.297	3	±	0.6	3	±	0.3	0.903	0.126	0.402
3011	wm-lh-lateraloccipital	2.9	±	0.6	2.7	±	0.4	0.472	2.5	±	0.4	2.5	±	0.3	0.442	0.107	0.321
3012	wm-lh-lateralorbitofrontal	2.7	±	0.6	2.5	±	0.4	0.396	2.3	±	0.4	2.3	±	0.2	0.799	0.126	0.217
3013	wm-lh-lingual	3.1	±	0.6	2.9	±	0.5	0.377	2.6	±	0.5	2.6	±	0.3	0.646	0.110	0.349
3014	wm-lh-medialorbitofrontal	2.7	±	0.5	2.5	±	0.4	0.396	2.4	±	0.4	2.3	±	0.3	0.926	0.184	0.431
3015	wm-lh-middletemporal	2.8	±	0.6	2.6	±	0.5	0.337	2.5	±	0.6	2.4	±	0.3	0.847	0.274	0.528
3017	wm-lh-paracentral	3	±	0.6	2.7	±	0.5	0.321	2.6	±	0.5	2.6	±	0.3	0.959	0.158	0.473
3016	wm-lh-parahippocampal	3.1	±	0.6	2.9	±	0.5	0.291	2.8	±	0.7	2.8	±	0.3	0.883	0.310	0.634
3018	wm-lh-parsopercularis	2.7	±	0.5	2.5	±	0.4	0.309	2.4	±	0.5	2.4	±	0.3	0.818	0.264	0.611
3019	wm-lh-parsorbitalis	2.2	±	0.5	2.1	±	0.4	0.452	2.1	±	0.4	2	±	0.2	0.742	0.435	0.570
3020	wm-lh-parstriangularis	2.6	±	0.6	2.4	±	0.4	0.351	2.3	±	0.5	2.2	±	0.2	0.776	0.213	0.402
3021	wm-lh-pericalcarine	2.9	±	0.6	2.8	±	0.4	0.441	2.3	±	0.4	2.4	±	0.3	0.484	0.030	0.090
3022	wm-lh-postcentral	2.7	±	0.5	2.4	±	0.4	0.272	2.4	±	0.5	2.5	±	0.3	0.996	0.402	0.907
3023	wm-lh-posteriorcingulate	3.3	±	0.7	3	±	0.5	0.277	2.8	±	0.5	2.8	±	0.3	0.973	0.080	0.321
3024	wm-lh-precentral	2.8	±	0.5	2.5	±	0.4	0.267	2.5	±	0.5	2.5	±	0.3	0.892	0.247	0.712
3025	wm-lh-precuneus	3.2	±	0.6	3	±	0.5	0.358	2.7	±	0.5	2.7	±	0.3	0.914	0.092	0.276
3026	wm-lh-rostralanteriorcingulate	3	±	0.6	2.8	±	0.5	0.360	2.5	±	0.4	2.5	±	0.3	0.951	0.058	0.205
3027	wm-lh-rostralmiddlefrontal	2.6	±	0.5	2.4	±	0.4	0.454	2.3	±	0.4	2.3	±	0.2	0.860	0.277	0.518
3028	wm-lh-superiorfrontal	2.7	±	0.5	2.5	±	0.4	0.426	2.5	±	0.5	2.5	±	0.3	0.918	0.369	0.747
3029	wm-lh-superiorparietal	3	±	0.6	2.7	±	0.4	0.339	2.6	±	0.5	2.6	±	0.3	0.848	0.176	0.590
3030	wm-lh-superiortemporal	2.9	±	0.6	2.7	±	0.5	0.302	2.6	±	0.6	2.5	±	0.2	0.732	0.288	0.497
3031	wm-lh-supramarginal	2.9	±	0.5	2.7	±	0.4	0.304	2.6	±	0.6	2.6	±	0.2	0.945	0.216	0.576
3033	wm-lh-temporalpole	2.3	±	0.4	2.1	±	0.3	0.281	2.2	±	0.5	2.1	±	0.2	0.759	0.544	0.955

3034	wm-lh-transversetemporal	3	± 0.6	2.8	± 0.5	0.306	2.7	± 0.6	2.7	± 0.3	0.863	0.300	0.634
4001	wm-rh-bankssts	3.2	± 0.7	2.9	± 0.6	0.298	2.6	± 0.6	2.6	± 0.3	0.880	0.084	0.207
4002	wm-rh-caudalanteriorcingulate	3.2	± 0.6	3	± 0.5	0.324	2.7	± 0.5	2.7	± 0.4	0.896	0.086	0.271
4003	wm-rh-caudalmiddlefrontal	2.9	± 0.6	2.7	± 0.4	0.334	2.5	± 0.4	2.4	± 0.3	0.861	0.118	0.343
4005	wm-rh-cuneus	3	± 0.6	2.8	± 0.4	0.396	2.5	± 0.5	2.5	± 0.4	0.595	0.050	0.223
4006	wm-rh-entorhinal	2.8	± 0.6	2.5	± 0.5	0.272	2.4	± 0.5	2.3	± 0.3	0.704	0.181	0.320
4032	wm-rh-frontalpole	2.3	± 0.4	2.2	± 0.4	0.595	2	± 0.3	2	± 0.3	0.788	0.169	0.356
4007	wm-rh-fusiform	3.1	± 0.6	2.9	± 0.5	0.305	2.5	± 0.5	2.5	± 0.3	0.875	0.054	0.178
4008	wm-rh-inferiorparietal	3	± 0.6	2.7	± 0.5	0.319	2.4	± 0.5	2.4	± 0.3	0.980	0.053	0.195
4009	wm-rh-inferiortemporal	2.9	± 0.5	2.6	± 0.5	0.291	2.4	± 0.5	2.4	± 0.3	0.901	0.105	0.319
4035	wm-rh-insula	3	± 0.6	2.8	± 0.5	0.313	2.5	± 0.5	2.5	± 0.3	0.869	0.103	0.267
4010	wm-rh-isthmuscingulate	3.6	± 0.7	3.3	± 0.6	0.334	3	± 0.6	3	± 0.3	0.986	0.071	0.233
4011	wm-rh-lateraloccipital	2.9	± 0.6	2.7	± 0.4	0.358	2.3	± 0.4	2.4	± 0.3	0.510	0.043	0.153
4012	wm-rh-lateralorbitofrontal	2.9	± 0.6	2.7	± 0.5	0.327	2.4	± 0.4	2.4	± 0.3	0.976	0.066	0.219
4013	wm-rh-lingual	3.1	± 0.6	2.9	± 0.5	0.365	2.5	± 0.5	2.6	± 0.4	0.603	0.050	0.205
4014	wm-rh-medialorbitofrontal	2.7	± 0.5	2.6	± 0.4	0.376	2.4	± 0.4	2.4	± 0.3	0.982	0.112	0.353
4015	wm-rh-middletemporal	2.9	± 0.6	2.6	± 0.5	0.321	2.4	± 0.5	2.4	± 0.3	0.893	0.121	0.280
4017	wm-rh-paracentral	3.1	± 0.6	2.8	± 0.5	0.321	2.6	± 0.5	2.6	± 0.3	0.892	0.082	0.274
4016	wm-rh-parahippocampal	3.2	± 0.6	3	± 0.6	0.277	2.8	± 0.6	2.8	± 0.4	0.982	0.198	0.546
4018	wm-rh-parsopercularis	2.9	± 0.6	2.7	± 0.5	0.330	2.5	± 0.5	2.5	± 0.3	0.830	0.102	0.273
4019	wm-rh-parsorbitalis	2.5	± 0.5	2.4	± 0.4	0.419	2.2	± 0.4	2.2	± 0.3	0.929	0.151	0.335
4020	wm-rh-parstriangularis	2.8	± 0.6	2.6	± 0.5	0.334	2.4	± 0.4	2.3	± 0.3	0.844	0.101	0.257
4021	wm-rh-pericalcarine	2.9	± 0.6	2.7	± 0.4	0.356	2.3	± 0.4	2.3	± 0.3	0.596	0.023	0.079
4022	wm-rh-postcentral	2.8	± 0.5	2.6	± 0.5	0.306	2.4	± 0.5	2.4	± 0.3	0.836	0.205	0.518
4023	wm-rh-posteriorcingulate	3.4	± 0.7	3.1	± 0.6	0.304	2.8	± 0.5	2.8	± 0.4	0.947	0.070	0.289
4024	wm-rh-precentral	2.9	± 0.6	2.6	± 0.5	0.303	2.5	± 0.5	2.4	± 0.3	0.836	0.138	0.396
4025	wm-rh-precuneus	3.2	± 0.6	3	± 0.5	0.351	2.6	± 0.5	2.6	± 0.3	0.822	0.041	0.169
4026	wm-rh-rostralanteriorcingulate	3.1	± 0.6	2.9	± 0.5	0.385	2.5	± 0.4	2.5	± 0.3	0.900	0.047	0.177
4027	wm-rh-rostralmiddlefrontal	2.7	± 0.5	2.5	± 0.4	0.439	2.4	± 0.4	2.4	± 0.3	0.906	0.168	0.369
4028	wm-rh-superiorfrontal	2.7	± 0.5	2.5	± 0.4	0.425	2.4	± 0.4	2.4	± 0.3	0.937	0.249	0.596
4029	wm-rh-superiorparietal	3	± 0.6	2.8	± 0.5	0.357	2.5	± 0.4	2.5	± 0.3	0.903	0.067	0.255
4030	wm-rh-superiortemporal	3	± 0.6	2.7	± 0.5	0.308	2.5	± 0.6	2.5	± 0.3	0.814	0.163	0.364
4031	wm-rh-supramarginal	3	± 0.6	2.8	± 0.5	0.338	2.5	± 0.5	2.5	± 0.3	0.821	0.106	0.246
4033	wm-rh-temporalpole	2.5	± 0.5	2.3	± 0.5	0.306	2.2	± 0.4	2.1	± 0.3	0.801	0.197	0.473

4034	wm-rh-transversetemporal	3.1	± 0.7	2.9	± 0.6	0.290	2.7	± 0.6	2.6	± 0.4	0.858	0.171	0.440
Other selected brain regions													
85	Optic-Chiasm	2.8	± 0.7	2.4	± 0.5	0.106	2.3	± 0.5	2.2	± 0.2	0.783	0.062	0.299
16	Brain-Stem	3.1	± 0.6	2.8	± 0.5	0.318	2.7	± 0.6	2.7	± 0.3	0.932	0.260	0.507
255	CC_Anterior	3.3	± 0.7	3.1	± 0.5	0.332	2.7	± 0.5	2.7	± 0.3	0.825	0.048	0.133
253	CC_Central	3.4	± 0.7	3.1	± 0.6	0.226	2.5	± 0.7	2.4	± 0.5	0.811	0.025	0.066
254	CC_Mid_Anterior	3.3	± 0.7	3	± 0.6	0.289	2.6	± 0.6	2.5	± 0.3	0.811	0.046	0.088
252	CC_Mid_Posterior	3.4	± 0.8	3.1	± 0.6	0.281	2.5	± 0.6	2.4	± 0.4	0.999	0.017	0.035
251	CC_Posterior	3.7	± 0.8	3.4	± 0.6	0.300	2.5	± 0.6	2.5	± 0.3	0.869	0.004	0.011
13, 52	Pallidum	3.3	± 0.7	3.1	± 0.6	0.305	2.9	± 0.6	2.8	± 0.3	0.730	0.173	0.313
12, 51	Putamen	2.4	± 0.5	2.3	± 0.4	0.304	2.1	± 0.4	2.1	± 0.3	0.997	0.174	0.453
10, 49	Thalamus-Proper	2.9	± 0.6	2.7	± 0.5	0.290	2.4	± 0.5	2.4	± 0.3	0.896	0.066	0.185
11, 50	Caudate	2.2	± 0.5	2	± 0.4	0.263	1.8	± 0.4	1.8	± 0.3	0.994	0.104	0.372
26, 58	Accumbens-area	2.2	± 0.5	2	± 0.4	0.230	1.9	± 0.4	1.9	± 0.2	0.784	0.165	0.618
18, 54	Amygdala	1.9	± 0.4	1.8	± 0.3	0.234	1.7	± 0.4	1.7	± 0.2	0.970	0.233	0.530
17, 53	Hippocampus	2	± 0.4	1.8	± 0.3	0.238	1.7	± 0.4	1.7	± 0.2	0.889	0.240	0.652

Data presented as mean ± standard deviation. *Sign.: Significant differences over time was assessed by a linear mixed model for repeated measurements. The difference between the REF and the iNPH groups at pre and at 4 weeks was assessed with a independent samples students t-test. SegID – FreeSurfer segmentation identity; Ctx - Cortex; lh – left hemisphere; rh – right hemisphere; wm – white matter; CC – corpus callosum; CSF – cerebrospinal fluid.