

THE LANCET **Neurology**

Supplementary webappendix

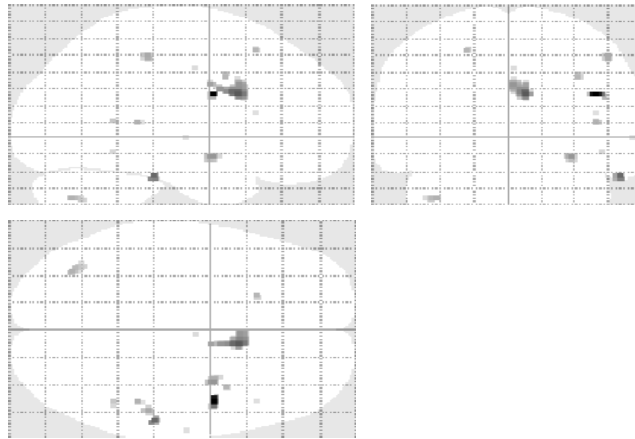
This webappendix formed part of the original submission and has been peer reviewed.
We post it as supplied by the authors.

Supplement to: Schretlen DJ, Varvaris M, Ho TE, et al. Regional brain volume abnormalities in Lesch-Nyhan disease and its variants: a cross-sectional study. *Lancet Neurol* 2013; published online Oct 24. [http://dx.doi.org/10.1016/S1474-4422\(13\)70238-2](http://dx.doi.org/10.1016/S1474-4422(13)70238-2).

Regional brain volume abnormalities in Lesch-Nyhan disease and its variants: a cross-sectional study

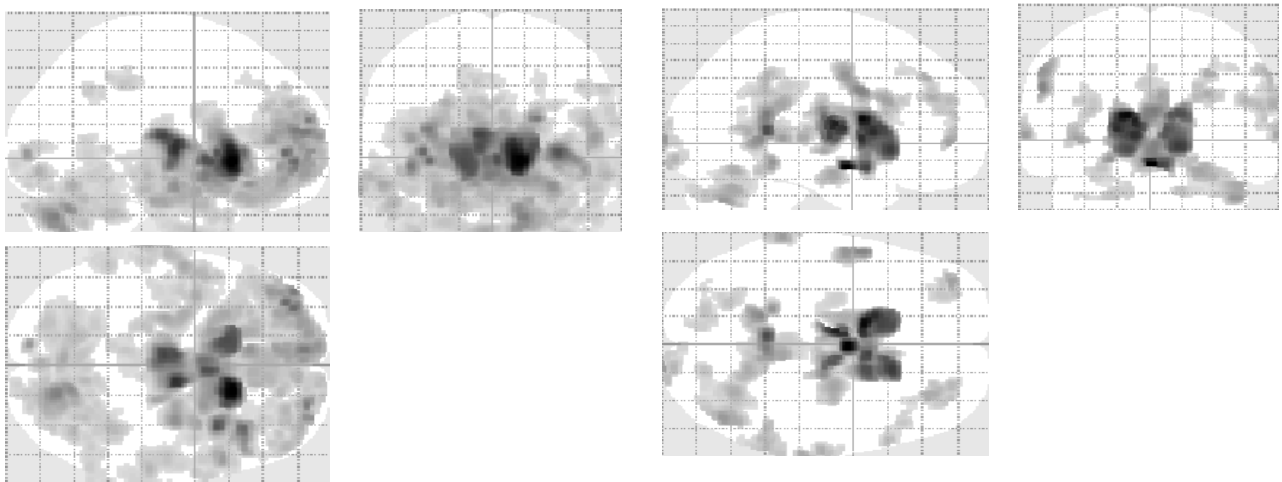
Supplementary Content

Figure S1. Glass brains showing scanner effects (in neurological convention) on regional gray matter volume



Maximum intensity projections showing regional effects of scanner on gray matter volume. Results shown illustrate an F-contrast and are not directionally specific. A liberal threshold of $p < .001$ was employed with no minimum cluster threshold. When results were corrected at the same threshold used for effects of interest, no significant areas of increased or decreased gray matter volume were found.

Figure S2. Glass brains showing effects of diagnosis (in neurological convention) on regional gray matter volume separately for two different machines



Maximum intensity projections showing results of 3x1 ANCOVA examining gray matter volume by diagnosis on a 3T scanner (left) and a 1.5T scanner (right) at $p < .001$ $k=100$. Note that similar findings were obtained from the two analyses, despite the fact that different participants were scanned on each machine. Based on these findings, data from both machines were pooled for analyses (covarying for machine as a nuisance variable) reported in the article.

Figure S3. Partial correlations (controlling for age) of Burke-Fahn-Marsden (BFM) ratings of dystonia severity with total intracranial volume.

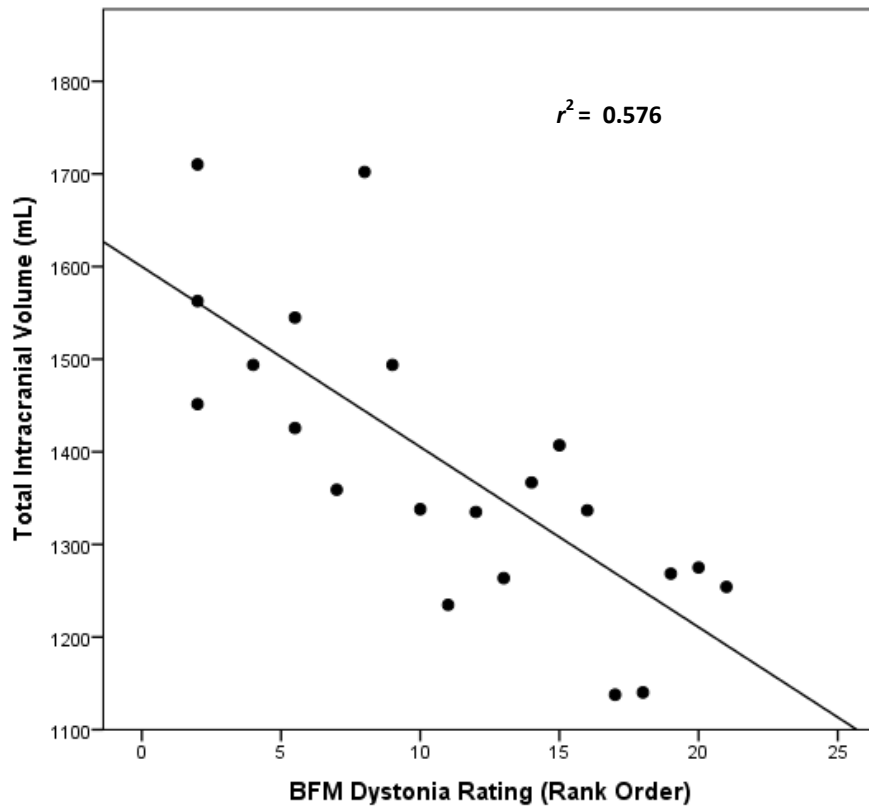


Table S1. Gray matter volume differences by diagnosis are presented along with cluster size and peak MNI coordinates for local maxima.

Cluster	p (FWE-corrected)	Cluster Size	Peak MNI Coordinates		
			X	Y	Z
1	0.001	10887	-7.5	-12	4.5
			7.5	-9	4.5
			13.5	19.5	-3
2	0.001	1945	-31.5	54	16.5
			-33	51	0
			-24	55.5	-1.5
3	0.007	416	27	-10.5	-18
4	0.001	816	33	55.5	7.5
			40.5	48	-3
			28.5	52.5	18
5	0.001	2490	16.5	-75	-31.5
			22.5	-60	-30
			28.5	-55.5	-9
6	0.001	635	-27	13.5	-16.5
			-27	21	-9
			-28.5	28.5	-4.5
7	0.007	448	-27	-7.5	-19.5
			-15	-16.5	-25.5
8	0.005	599	-60	-33	1.5
			-57	-36	-7.5
			-60	-45	-10.5
9	0.005	518	1.5	-37.5	42
			-6	-37.5	36
			1.5	-21	43.5