ICOBRAIN MS

icometrix

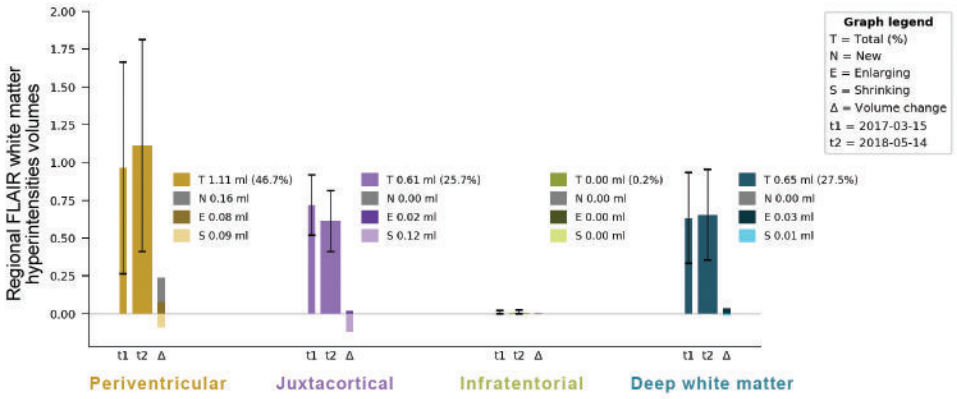
SUPPORTING THE OBJECTIVE TRACKING OF DISEASE PROGRESSION IN PATIENTS WITH MULTIPLE SCLEROSIS.

icobrain ms provides precise and relevant brain volume change metrics by:

- Tracking annualized brain volume changes for the whole brain and gray matter to evaluate disease progression
- Comparing brain volumes and volume changes to an age-and sex-matched normative reference population

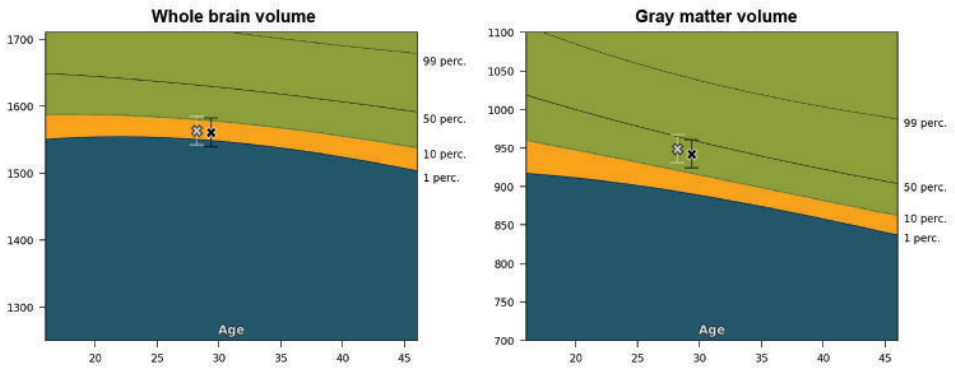
WHITE MATTER ABNORMALITIES

	FLAIR hyperintensities	T1 hypointensities
Volume	2.43 ml	0.93 ml
Volume change	0.07 ml	0.01 ml
New	0.16 ml	0.10 ml
Enlarging	0.13 ml	0.06 ml
Shrinking	0.23 ml	0.15 ml



BRAIN VOLUMES

	Whole brain	Gray matter
Volume	1561 ml*	942 ml*
Normal range	*1548 - 1714 ml**	*890 - 1040 ml**
Normative percentile	**3.0**	**31.9**
Annualized volume change	-0.16 %	-0.59 %
Normal annualized volume change	*-0.12 %*	*-0.41 %*



* Displayed brain volumes are scaled for head size. The scaling factor for this patient is 0.67.

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ICOBRAIN DM

icometrix

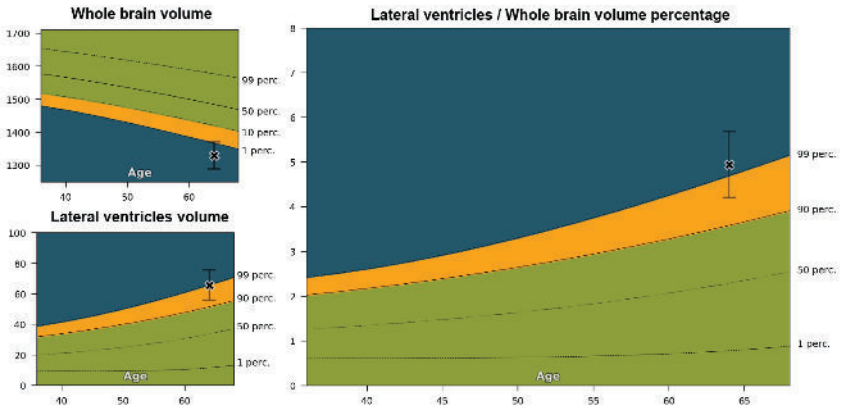
SUPPORTING A MORE CONFIDENT DIAGNOSIS OF PATIENTS WITH COGNITIVE IMPAIRMENT.

icobrain dm uncovers abnormality patterns by:

- Reporting sensitive brain volumetrics to allow the early detection of Alzheimer's and other diseases causing dementia; whole brain, ventricular
- Quantifying and tracking cortical brain volumes and asymmetries to help with the differential diagnosis of the most common dementia types; frontal, parietal, temporal, occipital, and hippocampal cortex
- Comparing volumes and volume changes to an age-and sex-matched normative reference population, visualizing abnormality patterns in an intuitive volume signature

BRAIN VOLUMES

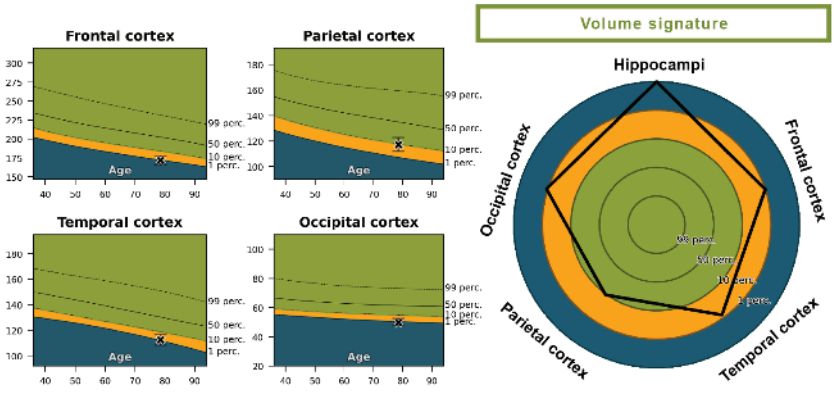
	Whole brain [WB]	Lateral ventricles [LV]	LV/WB percentage
Volume	1330 ml*	66 ml*	4.9 %
Normal range	*1367 - 1577 ml**	*12 - 66 ml**	*1 - 5 %*
Normative percentile	**< 1**	**98.9**	**99.8**



* Displayed brain volumes are scaled for head size. The scaling factor for this patient is 0.70.

BRAIN VOLUMES

	Frontal cortex	Parietal cortex	Temporal cortex	Occipital cortex	Hippocampi
Volume*	172 ml	117 ml	113 ml	50 ml	7.8 ml
Normal range	*172 - 232 ml*	*107 - 160 ml*	*112 - 151 ml*	*50 - 73 ml*	*8.5 - 12.2 ml*
Normative percentile	**< 1**	**9**	**1**	**< 1**	**< 1**
Asymmetry index**	-1 %	-1 %	-2 %	-4 %	6 %
Normal range	*-18 - 20 %*	*-20 - 25 %*	*-18 - 20 %*	*-23 - 31 %*	*-17.3 - 43.9 %*
Normative percentile	**54.5**	**28.3**	**30.1**	**22.8**	**40.2**



* Displayed brain volumes are scaled for head size. The scaling factor for this patient is 0.75.
** Asymmetry index is calculated as the difference between right and left volumes (R-L) divided by the average volume.

icobrain mr is intended for automatic labeling, visualization, and volumetric quantification of segmentable brain structures from a set of MR images. This software is intended to automate the current manual process of identifying, labeling, and quantifying the volume of segmentable brain structures identified on MR images. icobrain mr consists of two distinct image processing pipelines icobrain mr cross and icobrain mr long.

- icobrain mr cross is intended to provide volumes from images acquired at a single timepoint.
- icobrain mr long is intended to provide changes in volumes between two images that were acquired on the same scanner, with the same image acquisition protocol and with the same contrast at two different timepoints.
- The results of icobrain mr cross cannot be compared with the results of icobrain mr long.