Early Cognitive Impairment in Multiple Sclerosis Patients In Relation to Brain Atrophy, Egyptian Sample

Thesis

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List of Abbreviations

Abbrev.	Meaning
5-HT2C	Serotonin receptor
ASIC1	Acid Sensing Ion Channel Subunit1
ATP	Adenosine Tri-Phosphate
B cell	B lymphocyte
BBB	Blood-Brain Barrier
BBSI	Brain Boundary Shift Integral
BCG	Bacillus Calmette–Guérin
BDI-II	Beck Depression Inventory-Second Edition
BiCAMS	Brief International Cognitive Assessment for Multiple Sclerosis
BMI	Body Mass Index
BPF	Brain Parenchymal Fraction
BRB-N	Brief Repeatable Battery of Neuropsychological tests
BV	Brain Volume
BVL	Brain Volume Loss
BVMTR	Brief Visuospatial Memory Test— Revised
CCL2	CC-chemokine ligand 2 (CCL2)
CD4+T cell	Cluster of Differentiation 4+ T lymphocyte cell
CDC	Center for Disease Control and prevention
CDMS	Clinically Definite Multiple Sclerosis
CI	Cognitive Impairment
CIS	Clinically Isolated Syndrome
CLTR	Consistent Long-Term Retrieval
CNPase	2, 3 –Cyclic Nucleotide 3 Phosphodiesterase
CNS	Central Nervous System
COWAT	Controlled Oral Word Association Test

CSF	Cerebro-Spinal Fluid
CVLT	California Verbal Learning Test
CyPD	Cyclophilin D
DAT1	Dopamine Transporter gene
DI	Depression Inventory
DIR	Double Inversion Recovery
D-KEFS	Delis–Kaplan Executive Function System
DLPFC	Dorso-lateral Prefrontal Cortex
DMT	Disease Modifying Therapies
DSM-IV	Diagnostic and Statistical Manual of Mental Disorders 4
EBV	Ebestein Barr Virus
EDSS	Expanded Disability Status Scale
EFs	Executive Functions
FDA	Food and Drug Administration
FLAIR	Fluid-Attenuated Inversion Recovery
fMRI	Functional Magnetic Resonance Imaging
GA	Glatiramer Acetate
Gd	Gadolinium
Glu receptor	Glutamate receptor
GM	Gray Matter
GM-CSF	Granulocyte Macrophage Colony-Stimulating Factor
H1N1	Influenza A Virus
HBV	Hepatitis B Virus
HLA	Human Leucocyte Antigen
HTTLPR	degenerate repeat polymorphic region in SLC6A4
IFN	Interferon
IMSGC	International Multiple Sclerosis Genetics Consortium
JLO	Judgment of Line Orientation test
LTS	Long-Term Storage

MACFIMS	Minimal Assessment of Cognitive Function in Multiple Sclerosis
MAG	Myelin Associated Glycoprotein
MHC	Major Histo-compatibility Complex
MMPs	Matrix MetalloProteinases
MMSE	Mini-Mental State Examination
MMR	Measles, Mumps, Rubella
MPTP	Mitochondrial Permeability Transition Pore
MRI	Magnetic Resonance Imaging
MS	Multiple Sclerosis
MSIF	Multiple Sclerosis International Federation
mtDNA	Mitochondrial Deoxyribonucleic Acid
NAGM	Normally Appearing Grey Matter
NAWM	Normally Appearing White Matter
NCX	Na-Ca Exchanger
NEDA	No Evidence of Disease Activity
NMSS	National Multiple Sclerosis Society
NO	Nitrous Oxide
NOS	Nitrous Oxide Systems
NTZ	Natalizumab
ON	Optic Neuritis
OXYPHOS	Oxidative Phosphorylation
PASAT	Paced Auditory Serial Addition Test
PBVC	Percentage Brain Volume Change
PHQ-9	Patient Health Questionnaire-9
PPMS	Primary Progressive Multiple Sclerosis
ROS	Reactive Oxygen Species
RRMS	Relapsing Remitting Multiple Sclerosis
S1P1	sphingosine-1 phosphate receptor type 1

SDMT	Symbol Digit Modality Test
SIENAX	Structural Image Evaluation Using Normalization Of Atrophy
SPART	10/36 Spatial Recall Test
SPMS.	Secondary Progressive Multiple Sclerosis
SRT	Selective Reminding Test
SRT	Spatial Recall Test
TRPM4	Transient Receptor Potential Cation Channel Subfamily M Member 4
UVR	Ultra-Violet Rays
VBM	Voxel-Based Morphometry
VGCC	Voltage Gated Ca Channel
WBV	Whole Brain Volume
WCST	Wisconsin Card Sorting Test
WLG	Word List Generation
WM	White Matter
WMS-III	Wechsler memory Scale third edition

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