Language Defect in Pediatric Epilepsy

Thesis

Submitted for Fulfillment of
Master Degree in Neuropsychiatry

By

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List of Abbreviations

AAN	American Academy of Neurology
ACGH	Array Comparative Genomic Hybridization
ADHD	Attention Deficit Hyperactivity Disorder
ADNFLE	Autosomal Dominant Nocturnal Frontal Lobe Epilepsy
AEDs	Anti-Epileptic Drugs
AF	Arcuate Fasciculus
ASD	Autism Spectrum Disorders
ATL	Anterior Temporal Lobe
Aud	Auditory cortex
BA	Brodmann Areas
BECTS	Benign Epilepsy with Centro-Temporal spikes
BMP	Basic Metabolic Panel
BOLD	Blood-Oxygen-Level-Dependent
CBC	Complete Blood Count
CBZ	Carbamazepine
CDG	Congenital Disorder of Glycosylation
CLB	Clobazam
CNS	Central Nervous System
CNVs	Copy Number Variants
CP	Cerebral Palsy
CSF	Cerebrospinal Fluid
CSWS	Continuous Spike–Wave of Sleep
CSSWS	Continuous Spikes in slow-wave sleep
CT	Computed Tomography
DD	Developmental Delay
DTI	Diffusion Tensor Imaging
EEG	Electroencephalogram

EMA	European Medicines Agency
EPFA	Epileptiform Activities
ESES	Electrical Status Epilepticus during Sleep
ESL	Eslicarbazepine
FBM	Felbamate
FDA	Food Drug Association
FDG	Fluorodeoxyglucose
FLE	Frontal Lobe Epilepsies
fMRI	functional Magnetic Resonance Imaging
FOP	Frontal Operculum
GABA	Gamma-Aminobutyric Acid
GBP	Gabapentin
GTC	Genenralized Tonic Clonic
GTCS	Generalized Tonic–Clonic Seizure
HG	Heschle's Gyrus
HHH	Hyperammonia, Hyperornithinemia, Homocitrullinemia
IBE	International Bureau for Epilepsy
IFG	Inferior Frontal Gyrus
IFOF	Inferior Occipito-Frontal Fasciculus
IFS	Inferior Frontal Sulcus
ILAE	International League Against Epilepsy
ITG	Inferior Temporal Gyrus
IQ	Intelligence Quotient
JME	Juvenile Myoclonic Epilepsy
LCM	Lacosamide
LEV	Levetiracetam
LKS	Landau– Kleffner Syndrome
LP	Lumbar Puncture
LTG	Lamotrigine

MEG	Magnetoencephalography
MELAS	Mitochondrial Encephalomyopathy Lactic Acidosis and Stroke-like episodes
MERRF	Myoclonus Epilepsy with Ragged Red Fibers
MR	Mental Retardation
MRS	Magnetic Resonance Spectroscopy
MRI	Magnetic Resonance Imaging
MSI	Magnetic Source Imaging
MSUD	Maple Syrup Urine Disease
MTG	Middle Temporal Gyrus
NCL	Neuronal Ceroid Lipofuscinoses
NFLE	Nocturnal Frontal Lobe Epilepsy
NMDA receptor	N-Methyl-D-aspartic Acid receptor
NMRI	Nuclear Magnetic Resonance Imaging
NP	Neuropsychological
NREM	Non Rapid Eye Movement
OXC	Oxcarbazepine
PAC	Primary Auditary Cortex
PB	Phenobarbital
PDH	Pyruvate Dehydrogenase Deficiency
PDS	Paroxysmal Depolarization Shift
PET	Positron Emission tomography
PHT	Phenytoin
PM	Pre-Motor
PME	Progressive Myoclonic Epilepsy
RE	Rolandic Epilepsy
REM	Rapid Eye Movement
RTG	Retigabine
RUF	Rufinamide

SAA	Serum Amino Acid
SCF	Subcallosal Fasciculus
SDEEG	Sleep-Deprived EEG
SLF	Superior Longitudinal Fasciculus
SLI	Specific Language Impairment
SLP	Speech and Language Pathologist
SMG	Supramarginal Gyrus
SPECT	Single Photon Emission Computed Tomography
Spt region	Sylvian parietal temporal region
SSDD	Succinic Semialdehyde Dehydrogenase Deficiency
STG	Superior Temporal Gyrus
STS	Superior Temporal Sulcus
TGB	Tiagabine
TLCPSs	Temporal Lobe Complex Partial Seizures
TLEs	Temporal Lobe Epilepsies
TPM	Topiramate
UOA	Urine Organic Acid
VGB	Vigabatrin
VLCFA	Very Long-Chain Fatty Acids
VPA	Valproic acid
WISC	Wechsler Intelligence Scale for Children
ZNS	Zonisamide

Glossary

Angelman syndrome	It is a neuro-genetic disorder characterized by severe intellectual and developmental disability, sleep disturbance, seizures, jerky movements (especially hand-flapping), frequent laughter or smiling, and usually a happy demeanor.
Comb-like rhythm	A unique electroencephalographic pattern (the comb-like rhythm) is described in an infant with neonatal (classic) maple syrup urine disease. This pattern consists of bursts and runs of ٥-٧ Hz primarily monophasic negative (mu-like) activity in the central and central-parasagittal regions during wakefulness and sleep with the most abundant bursts occurring during quiet (non-REM) sleep. This pattern appeared during the first ٢ weeks of life and was absent in the recording obtained ٤٠ days after the initiation of dietary therapy.
Hypomelanosis of Ito	It is a multisystem disorder in which most organs of the body may show anomalies in addition to the skin. The most frequent alterations are found in the musculoskeletal and central nervous systems.
Molybdenum	Molybdenum cofactor deficiency is a rare human disease in which the absence of molybdenum cofactor leads to accumulation of toxic levels of sulphite and neurological damage. Usually this leads to death within months of birth, due to the lack of active sulfite oxidase.
Ontogeny	The development of individual organism.

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ACKNOWLEDGEMENT

First of all, I thank ***"Allah"*** *to whom I relate any success in achieving any work in my life.*

I wish to express my gratitude to ***Professor Dr. Samia Ashour,*** *Professor and Head of Neuropsychiatry Department Ain Shams University; to her I owe so much. I am really honored by her kind supervision, full support and care.*

I am very grateful to Professor ***Dr Nahed Salah Eldeen*** *Professor of Neurology Ain Shams University, for her great help and kind supervision with very valuable comments and recommendations. She is the role model of 'the Professor'*

Especial thanks for ***Dr Maha Nada*** *Lecturer of Neurology Ain Shams University. Who support me by her great ideas in my review, meticulous supervision, and was patient with me .*

In this regard, I express the greatest thanks and appreciation to my dear professor in Yemen Professor ***Abdulrahman Sallam,*** *who is worth noting, he received his higher from this deep-rooted university. He was credited after Allah Almighty to give me the honor to belong to this edifice giant, by his supporting and continued encouragement.*

Great thank to all the professors and doctors, whom helped me in my education and training to be at a good level of academy, and this is normal for them because Egypt is always and since time considered as the exporter of science for all peoples.

I do not forget to thank my dear colleagues who eased me the trouble of emigration by their love and support; they have very much thanks and greetings.

Many thanks for ***my family*** *who love me, and pray for me and many great thanks and appreciation to my dear brother Fares who travelled abroad with me to give me his care and support.*

Zumurudah Taha Haroon


بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ
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