Role of MRI Applications in the Diagnosis of Focal Cortical Dysplasia

Essay

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بسم الله الرحمن الرحيم

وَقُلِ اعْمَلُوا فَسَيَرَى اللَّهُ

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LIST OF ABBREVIATIONS

Abbreviation	Name
1.5T	1.5 Tesla
3D	Three-dimensional
3T	3 Tesla
7T	7 Tesla
A-MAP	Anatomy-based maximum a-posteriori iterative reconstruction algorithm
ADC	Apparent diffusion coefficient
AEDs	Anti-epileptic drugs
ASL	Arterial spin labeling
AVM	Arteriovenous malformation
BGO	bismuth germinate
CS	Carnegie Stage
CBF	cerebral blood flow
CBV	cerebral blood volume
CP	cortical plate
CSF	Cerebrospinal fluid
DNET	Dysembryoplastic neuroepithelial tumor
DOT	Diffusion orientation transform
DSI	Diffusion spectrum imaging
DTI	Diffusion tensor imaging
DW-PW MRI	Diffusion weighted magnetic resonance imaging
ECoG	Electrocorticography

EEG	Electroencephalography
ECD	Equivalent current dipole
EZ	Epileptogenic zone
FA	Fractional anisotropy
FCD	Focal cortical dysplasia
FDG	Fluorodeoxyglucose
FDG-PET	Fluorodeoxy-Glucose Positron–Emission Tomography
FLAIR	fluid-attenuated inversion recovery
FLASH	Fast low-angle shot
fMRI	Functional Magnetic resonance imaging
FMZ	flumazenil
FOV	field of view
FT	Fiber Tractography
GSO	Gadolinium silicate
GABA	Gamma amino butyric acid
GFAP	Glial fibrillary acidic protein
GM	Grey matter
HRRT	High resolution research tomograph
HARDI	High angular resolution diffusion imaging
HP	High-pass
HS	Hippocampal sclerosis
5 HT_{1A}	5-hydroxytryptamine-1 A
ILAE	International League Against Epilepsy

LSO	lutetium oxyorthosilicate
MCD	Malformation of cortical development
MD	Mean diffusivity
MEG	Magnetoencephalography
MET	Methionine
ML	maximum-likelihood reconstruction
MLM	macroscopic longitudinal magnetization
mMCD	Mild Malformation of cortical development
MPRAGE	magnetization prepared rapid gradient-echo
MR	Magnetic resonance
MRI	Magnetic resonance imaging
MRS	Magnetic resonance spectroscopy
MSI	Magnetic source imaging
MR-AC	Magnetic resonance-based attenuation correction
MZ	Marginal zone
NCX	Neocortex
ODF	Orientation distribution function
PA	Phased array
PAS	Persistent angular structure
PASL	Pulsed arterial spin labeling
PET	Positron emission tomography
PET/CT	Positron emission tomography / computed tomography
PI	Principal eigenvector

PMT	Photomultiplier tubes
PVE	Partial volume effect
QBI	Q-ball imaging
RF	Radiofrequency
ROI	Region of interest
SD	Standard deviation
SE	Spin echo
SP	Subplate
SPECT	Single photon emission computed tomography
SPGR	Spoiled gradient-recalled echo
SPM	Statistical parametric mapping
SNR	Signal to noise ratio
SUV	Standardized uptake values
SVZ	Subventricular zone
SWI	Susceptibility weighted imaging
T1 WI	T1 weight image
T2 WI	T2 weight image
TE	Echo time
TSE	Turbo spin echo
TSC	Tuberous sclerosis complex
UIZ	Upper intermediate zone
VBM	Voxel-based morphometry
VEEG	Video-Electroencephalography

VZ	Ventricular zone
WM	White matter

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