

# **Risk Predictors of Weight Gain in Chronic Treatment with Valproate in Epileptic Patients**

*Thesis*

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بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

قالوا

سببنا انك لا تعلم لنا  
إلا ما علمتنا إنك أنت  
العليم العظيم

صدق الله العظيم

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## *List of Abbreviations*

Abb.	Meaning
ADH	: Antidiuretic hormone
AEDs	: Antiepileptic drugs
AgRP	: Agouti-related peptide
AIDS	: Acquired immunodeficiency syndrome
AMPA	: Alfa-amino-3-hydroxy-5-methyl-4-isoxazole propionate
APoA1	: Apolipoprotein A1
AUC	: Area under curve
BMI	: Body mass index
CAD	: Coronary artery disease
CART	: Cocaine & amphetamine regulated transcript
CBZ	: Carbamazepine
CNS	: Central nervous system
CRP	: C-reactive protein
CYP3A4	: Cytochrome enzyme (P3A4)
DEEG	: Digital electroencephalogram
ELISA	: Enzyme linked immunosorbant assay
FDA	: Food & Drug administration
FLE	: frontal lobe epilepsy
FFAs	: Free fatty acids
GABA	: Gamma amino butyric acid
GAT1	: GABA transporter 1
GBP	: Gabapentin
GLUT4	: Glucose receptor type 4
HDA1C	: Histone deacetylase-1
HDL	: High density lipoprotein
HIV	: Human immunodeficiency virus
HLA	: Human leucocytic antigen
HOMA/IR	: Homeostasis model of insulin resistance
HS	: hippocampal sclerosis
IL6	: Interleukin 6
ILAE	: International league against epilepsy
IQR	: Inter quarter ratio

IR	: Insulin resistance
IRS-PI3-K	: Intrinsic receptor substrate-phosphatidyl inositol 3-kinase
JAK	: Janus kinases
LCAT	: Lecithin cholesterol acyl transferase
LDL	: Low density lipoprotein
LH	: Lateral hypothalamus
LPL	: Lipoprotein lipase
Mc4R	: Melanocortin 4- receptor
MEHMO	: Mental retardation, epileptic seizures, hypogenitalism, microcephaly and obesity
MRI	: Magnetic Resonance Imaging
MSH	: Melanocyte stimulating hormone
MTLE	: Mesial temporal lobe epilepsy
NAFLD	: Non-alcoholic fatty liver disease
NMDA	: N-methyl-D-aspartate
NPY	: Neuropeptide Y
ROC	: Receiver operating curve
PAI-1	: Plasminogen activator inhibitor-1
PC-1	: Prohormone convertase-1
PCOs	: Polycystic ovaries
PGI <sub>2</sub>	: Prostacyclin
PoMC	: Pro-opiomelanocortin
PPAR $\alpha$	: Peroxisome proliferator activator receptor
PTHrP	: parathyroid hormone related protein
Sd LDL	: Small dense LDL
SIADH	: Syndrome of inappropriate secretion of ADH
SMA	: supplementary motor area
STAT	: Signal transducer & activator of transcription
TG	: Triglyceride
TGB	: Tiagabine
TNF $\alpha$	: Tumor necrosis factor $\alpha$
VEGF	: Vascular endothelial growth facto
VMH	: Ventromedial hypothalamus
VPA	: Valproic Acid

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# *Introduction*

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## *Aim of Work*

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# **Obesity and its Relation To Insulin and Leptin**

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# **Overview on Epilepsy**

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# **Valproic acid Treatment and Obesity**

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## *Subjects and Methods*

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