Effect of Zinc Supplementation on Glucose Homeostasis in Patients with β-Thalassemia Major Complicated with Diabetes Mellitus

Thesis

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بسم الله الرحمن الرحيم

قالوا

سبحانك لا علم لنا
إلا ما علمتنا إنك أنت
العليم الحكيم

صدق الله العظيم

سـورة البـقـرة الآيـة: ٣٢

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List of Abbreviations

Abb.	Full term
AGEs………………...	Advanced Glycation end Products
AHSP………………...	α-hemoglobin-Stabilizing Protein
AKT(PKB)…………...	Protein kinase B
BM…………………...	Bone marrow
BMD ………………...	Bone mineral density
BMI…………………..	Body mass index
B-TM………………..	Beta-thalassemia major
B-TI………………….	Beta-thalassemia intermedia
BW .... ……...	Body weight
CVD .... ……...	Cardiovascular disease
D.bil .... ……...	Direct bilirubin
DEXA………………..	Dual Energy X-ray Absorptiometry
DFP.................. ……..	Deferiprone
DFX................. ……...	Deferasirox
DM……………………	Diabetes mellitus
DNA…………………...	Deoxy Nucleic Acid
EC…………………….	Enothelial cell
ECG................. ……...	Electrocardiogram
ECHO .... ……...	Echocardiography
EPO .... ……...	Erythropoietin
ER …………………….	Eendoplasmic Rreticulum
Fig……………………...	Figure
GDF15………………...	Growth differentiation factor 15
γGT……………………	Gamma-glutamyl transpeptidase
GLUT…………………	Glucose transporter
GSH…………………...	Glutathione
Hb ……………………	Hemoglobin
HbA…………………...	Adult Hemoglobin

List of Abbreviations (Cont...)

Abb.	Full term
HbF	Fetal Hemoglobin
HBV	Hepatitis B virus
HCV	Hepatitis C virus
HFD	High Fat Diet
HLA	Human leukocyte antigen
HO-1	Heme oxygenase-1
HOMA-IR	Homeostasis Model Assessment Insulin Resistance
HPLC	high performance liquid chromatography
HU	Hydroxyurea
IFG	Impaired Fasting Glucose
IGT	Impaired Glucose Tolerance
IL-6	Interleukin 6
IRAP	Insulin-responsive aminopeptidase
Kb	Kilo Bite
MCH	Mean corpuscular Hb
MCP-1	Macrophage Chemoattractant Protein 1
MCV	Mean corpuscular volume
MDA	Malondialdehyde
MTs	Metallothionein
MUFA	Monounsaturated fatty acid
NADPH-oxidase	Nicotinamide Adenine Dinucleotide phosphate-oxidase
NF- k B	Nuclear factor -KB
Nrf2	Nuclear factor erythroid 2-related factor 2
OSI	Oxidative Stress index
PPAR	Peroxisome proliferator-activated receptor (NR1c3)
PRDX2	Peroxiredoxin 1