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***Growth Pattern and Body Composition in
Pre-adolescents Egyptian Children with
Type 1 Diabetes Mellitus***

Thesis

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ABBREVIATIONS

ACE	Angiotensin Converting Enzyme	IFG	Impaired Fasting Glycaemia
ADA	American diabetes Assosiation	IGF-I	Insulin-like growth factor - I
APCs	antigen presenting cells	IGT	Impaired glucose Tolerance
BIA	Bioelectrical impedance analysis	IL	Interleukin
BMC	Bone mineral content	IZS	insulin zinc suspension
BMD	Bone mineral density	Kg	Kilogram
BMI	Body mass index	LDL	low density lipoprotein
CBV-ε	Coxsackie virus	MAC	Mid Upper arm circumference
CDK ε	Cyclin- Dependent Kinase ε	MODY	Maturity onset diabetes in the young
CGMS	Continuous glucose monitoring system	NIDDM	Non insulin dependent diabetes mellitus
CNS	Central Nervous System	NPH	neutral protamine Hagedorn insulin
CSII	Continuous Subcutaneous Insulin Infusion	NSGP	National Glycohemoglobin Standardization Program
DCCT	Diabetes Control and Complications Trial	OGTT	Oral Glucose Tolerance Test
DKA	Diabetic ketoacidosis	PCR	Polymerase Chain Reaction
DM	Diabetes Mellitus	PDR	proliferative diabetic retinopathy
DXA	Dual Energy X-Ray Absorptiometry	Pdx- ¹	pancreas/duodenum homeobox- ¹
EV	Enterovirus	PEDF	Pigment Epithelium derived Factor
FBG	Fasting blood glucose	PEM	Protein energy malnutrition
FFM	Fat free mass	SD	Standard deviation
FPG	Fasting Plasma Glucose	SDS	Standard deviation score
g	gram	SMBG	Self-monitoring of blood glucose
GAD ⁶⁵	Glutamic acid decarboxylase	SRIF	somatotropin release-inhibiting factor
GDM	Gestational Diabetes Mellitus	T ¹ DM	Type ¹ Diabetes Mellitus
GFR	glomerular filtration rate	T ³	triiodothyronine
GH	Growth hormone	T ⁴	tetraiodothyronine)
HBA ^{1c}	Glycated haemoglobin A ^{1c}	TBF	Total body fat
HDL	High Density Lipoproteins	TBW	Total body water
Ht	Height	UWW	Under Water Weighing
IAA	Insulin auto antibodies	WHO	World health organization
ICA	Islet Cell Antibodies	wk	Week
IDW	ideal body weight	Wt	Weight

ACE	Angiotensin Converting Enzyme		
ACE	Angiotensin Converting Enzyme		
ADA	American diabetes Assosiation		
APCs	antigen presenting cells		
BIA	Bioelectrical impedance analysis		
BMC	Bone mineral content		
BMD	Bone mineral density		
BMI	Body mass index		
CBV-ξ	Coxsackie virus		
CDK ξ	Cyclin- Dependent Kinase ξ		
CGMS	Continuous glucose monitoring system		
CNS	Central Nervous System		
CSII	Continuous Subcutaneous Insulin Infusion		
DCCT	Diabetes Control and Complications Trial		
DKA	Diabetic ketoacidosis		
DM	Diabetes Mellitus		
DXA	Dual Energy X-Ray Absorptiometry		
EV	Enterovirus		
FBG	Fasting blood glucose		
FFM	Fat free mass		
FPG	Fasting Plasma Glucose		
g	gram		
GAD ⁶⁵	Glutamic acid decarboxylase		
GDM	Gestational Diabetes Mellitus		
GFR	glomerular filtration rate		
GH	Growth hormone		
HBA ^{1c}	Glycated haemoglobin A ^{1c}		
HDL	High Density Lipoproteins		
Ht	Height		
IAA	Insulin auto antibodies		
ICA	Islet Cell Antibodies		
IDW	ideal body weight		
IFG	Impaired Fasting Glycaemia		
IGF-I	Insulin-like growth factor - I		
IGT	Impaired glucose Tolerance		
IL	Interleukin		
IZS	insulin zinc suspension		
Kg	Kilogram		
LDL	low density lipoprotein		
MAC	Mid Upper arm circumference		
MODY	Maturity onset diabetes in the young		
NIDDM	Non insulin dependent diabetes mellitus		
NPH	neutral protamine Hagedorn insulin		
NSGP	National Glycohemoglobin Standardization Program		
OGTT	Oral Glucose Tolerance Test		
PCR	Polymerase Chain Reaction		
PDR	proliferative diabetic retinopathy		
Pdx- ¹	pancreas/duodenum homeobox- ¹		

PEDF	Pigment Epithelium derived Factor		
PEM	Protein energy malnutrition		
SD	Standard deviation		
SDS	Standard deviation score		
SMBG	Self-monitoring of blood glucose		
SRIF	somatotropin release-inhibiting factor		
T ¹ DM	Type 1 Diabetes Mellitus		
T ³	triiodothyronine		
T ⁴	tetraiodothyronine)		
TBF	Total body fat		
TBW	Total body water		
UWW	Under Water Weighing		
WHO	World health organization		
wk	Week		
Wt	Weight		

ADA	American diabetes Assossiation	IL	Interleukin
APCs	antigen presenting cells	CNS	Central Nervous System
BMI	Body mass index	DKA	Diabetic ketoacidosis
CBV- ϵ	Coxsackie virus	GFR	glomerular filtration rate
DCCT	Diabetes Control and Complications Trial	ACE	Angiotensin Converting Enzyme
DM	Diabetes Mellitus	PDR	proliferative diabetic retinopathy
DXA	Dual Energy X-Ray Absorptiometry	LDL	low density lipoprotein
EV	Enterovirus	NPH	neutral protamine Hagedorn insulin
FBG	Fasting blood glucose	IZS	insulin zinc suspension
FFM	Fat free mass	CSII	Continuous Subcutaneous Insulin Infusion
FPG	Fasting Plasma Glucose	SMBG	Self-monitoring of blood glucose
g	gram	CGMS	Continuous glucose monitoring system
GAD ⁶⁵	Glutamic acid decarboxylase	HBA ^{1c}	Glycated haemoglobin A ^{1c}
GDM	Gestational Diabetes Mellitus	Pdx-1	pancreas/duodenum homeobox-1
HDL	High Density Lipoproteins	CDK ϵ	Cyclin- Dependent Kinase ϵ
Ht	Height	PEDF	Pigment Epithelium derived Factor
IAA	Insulin auto antibodies	wk	Week
ICA	Islet Cell Antibodies	GH	Growth hormone
IFG	Impaired Fasting Glycaemia	IGF-I	Insulin-like growth factor - I
IGT	Impaired glucose Tolerance	SRIF	somatotropin release-inhibiting factor

MAC	Mid Upper arm circumference	T ³	triiodothyronine
MODY	Maturity onset diabetes in the young	T ⁴	tetraiodothyronine)
NIDDM	Non insulin dependent diabetes mellitus	IDW	ideal body weight
NSGP	National Glycohemoglobin Standardization Program	SD	Standard deviation
OGTT	Oral Glucose Tolerance Test	SDS	Standard deviation score
PCR	Polymerase Chain Reaction	PEM	Protein energy malnutrition
T ¹ DM	Type 1 Diabetes Mellitus	BMC	Bone mineral content
TBW	Total body water	BIA	Bioelectrical impedance analysis
UWW	Under Water Weighing	TBF	Total body fat
WHO	World health organization	BMD	Bone mineral density
Wt	Weight	Kg	Kilogram

AC	Abdominal circumference	IGFBP	Insulin-like growth factor binding protein
ACTH	Adrenocorticotropic Hormone	IGF-I	Insulin-like growth factor - I
AFI	Amniotic fluid index	IGF-II	Insulin-like growth factor - II
AGA	Appropriate for gestational age	IGFIR	Insulin like growth factor receptor
ALS	Acid labile subunit	IR	Insulin receptor
BMI	Body mass index	IUGR	Intrauterine growth restriction
BPP	Biophysical profile	IVH	Intraventricular hemorrhage
CAD	Coronary artery disease	kDa	Kilo-Dalton
CC	Chest circumference		
CNS	Central nervous system	LBW	Low birth weight
CS	Cesarean Section	LGA	Large for gestational age
DM	Diabetes Mellitus	MUC	Midupper arm circumference
EFW	Estimated fetal weight	NEC	Necrotizing enterocolitis
ELISA	Enzyme linked immunosorbant assay	OFC	Occipitofrontal circumference
FEV ₁	Forced expiratory volume in 1 second	PGH	Placental growth hormone
FH	Fundal height	PI	Ponderal index
GA	Gestational age	RDS	Respiratory distress syndrome
GH	Growth hormone	SD	Standard deviation
GLUT	Glucose Transporter Protein	SGA	Small for gestational age
gm	Gram	SIDS	Sudden infant death syndrome.
HBA _{1c}	Glycated haemoglobin A _{1c}	T ₄	Thyroxine
HC	Head circumference	UA	umbilical artery
hGH-N	Human Pituitary Growth Hormone	Wk	Week

HT	Height	WT	Weight
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