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"وَقُلْ رَبِّ زِدْنِي عِلْمًا"

صَدَقَ اللَّهُ الْعَظِيمُ

"114" طه

**ROLE OF INFLAMMATORY MARKERS OF INNATE
IMMUNITY IN PREGNANT FEMALE WITH OR
WITHOUT DIABETES MELLITUS**

Thesis

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وجود مرض السكر أو عدمه

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LIST OF ABBREVIATIONS

APL	Anti phospholipide
APS	Anti phospholipid anti body syndrome
ADS	American diabetes association
AGES	Advanced glycation end products
BMI	Body massindex
CRP	c-reactive protein
Σ	Σxpected results
ΣX	Sum of observations
ΣX^2	Sum of squared observations
$(\Sigma X)^2$	Square of the sum of observations
F	$\frac{S1^2}{S1^2}$
FB %	Factor B
GDM	Gestation diabetes mellitus
HPA	Hypothalamic –pituitary- adrenal
ICAM-1	Intera cellular adhesion molecule -1

IDO	Indol amine -2,3- dioxygenase
IFG	Impaired fasting glucose
IGT	Impaired glucose tolerance
LADA	Latent autoimmune diabelus in adulate
LC-NE	Locus – coeruleus – nor epinephrine
LDL	Low density lipoprotien
LPS	Lipopoly saccharide
MODY	Maturity onset diabetes of the yange
μ	Micron
NDDG	National diabetes data group
NF – KB	Nuclear factor - kb
NGT	Normal glucose tolerance
N	Number of observations
N	Number of observations
N 1	Size of sample (1)
N2	Size of sample (2)
O	Observed results
O – E ²	Difference squared
OGTT	Oral glucose Tolrance test
PAI – 1	Plasminogen activator inhibitor - 1
PRRS	Pattern recognition receptors

RSA	Recurrent spontonus abortions
SP²	Pooled variance
S₁	Standard deviation of sample (1)
S₂	Standard deviation of sample (2)
S1²	Variance for group 1
S2²	Variance for group 2
S1²	Variance of sample (1)
S2²	Variance of sample (2)
TCC	Terminal complement complex
TLR	Toll like reception
TNF	Tumor necrosis factor alpha
VCAM-1	Vascular adhesion molecule -1
VLDL	Very low density lipoprotein
X₁	Mean of sample (1)
X₂	Mean of sample (2)
X⁻	Arithmetic mean

INTRODUCTION

Diabetes mellitus has emerged as a major health challenge of the 21st century. The disease has assumed epidemic proportions globally. WHO projects that; by the year 2025 about 300 million people will have diabetes (***Abate and Chandalia, 2001, Shamim et al., 2008***). Gestational diabetes (GDM) is a condition in which women without previously diagnosed diabetes exhibit high blood glucose levels during pregnancy. GDM generally has few symptoms and it is most commonly diagnosed by screening during pregnancy (***Moore et al., 2005***).

The innate or natural immune system is the body's rapid first-line defense against environmental threats such as microbial infection and physical or chemical injury (***Spranger et al., 2003***). A series of reactions are induced that prevent ongoing tissue damage, isolate and destroy infective agents, and activate repair processes to restore homeostasis. The maternal immune system is modulated in several ways during pregnancy such that a normal, robust response to pathogens is maintained and at the same time allows the fetus to survive and thrive (***Pradhan et al., 2001***).

C-reactive protein is an acute phase serum reactant. Median CRP values during pregnancy were higher than values for non-pregnant ladies, and these values were elevated further in labor. Serum complement factors C3 and C4 are significantly elevated during the second and third trimesters of pregnancy (***Cunningham et al., 2002***).

Estrogen and progesterone stimulate pancreatic B-cells hyperplasia leading to increased insulin secretion. While placental enzyme insulinase accelerate degradation of insulin (***Moore.,2004***). So, the net effect is decreased insulin effectiveness. Induced hypoglycemia causes increase in maternal glucagon (***Gilbert., 2007***).

In our study, we aimed to clarify if there is an innate immunological risk factor for developing diabetes mellitus in pregnant woman apart from other hormonal and metabolic risk factors.

AIM OF THE WORK

The aim of this work is to focus on the role of inflammatory markers of innate immunity in pregnant female with or without diabetes mellitus and its significance.