

# THYROID HORMONES IN CENTRAL OBESE HYPERTENSIVE NON INSULIN DEPENDENT DIABETICS

For partial fulfillment of M.Sc.  
Degree in Internal medicine

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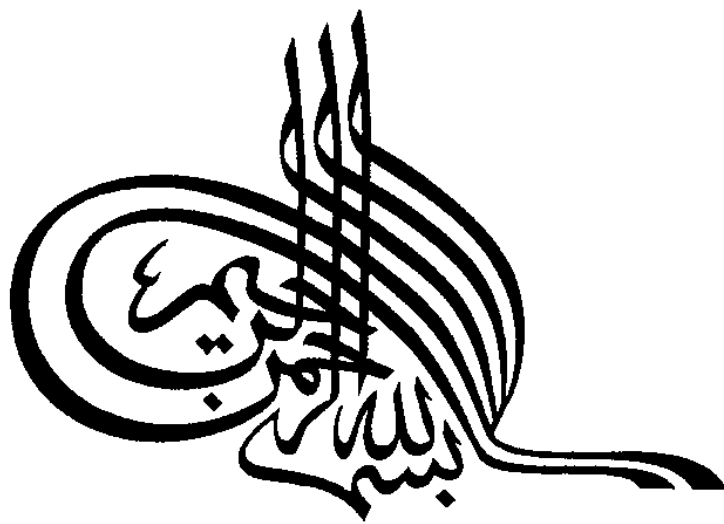
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## **List of Abbreviation**

BMI	Body mass index
WHR	Waist to hip ratio
NIDDM	Non insulin dependent diabetes mellitus
FFA	Free fatty acid
HDL	High density lipoprotein
LDL	Low density lipoprotein
PAI	Plasminogen activator inhibitor
TNF	Tumor necrosis factor
GFR	Glomerular filtration rate
BCT	Proximal convoluted tubule
CHD	Coronary heart disease
T <sub>3</sub>	Tri iodo thyronine
T <sub>4</sub>	Tetra iodo thyronine
TSH	Thyroid stimulating hormone
TAAB	Thyroid auto antibodies
TRH	Thyroid releasing hormone
ATP	Adenosine triphosphate



# INTRODUCTION



## **Introduction and Aim of the Work**

Insulin resistance can be defined as a lower than normal response to any given insulin stimulus and a person who is more insulin sensitive will show a greater fall in blood glucose than same one who is less insulin sensitive. At its simplest, an elevated plasma insulin at the same time a normal or elevated fasting blood glucose concentration may be taken to suggest insulin resistance (*Taylor, 1994*).

Insulin resistance is associated with non insulin dependent diabetes mellitus (NIDDM), ischemic heart disease, hyperlipidaemia, central body obesity and hypertension (*Reaven, 1988, Ferrannini, 1991*). Central obesity has been generally accepted as a major risk factor for NIDDM and atherosclerotic cardiovascular disease (*Haffner, 1986*). Failure to lose weight may be manifestation of hypothyroidism, again hypothyroidism may promote hypertension, hypercholesterolaemia, coronary heart disease (*Comtois, 1995*). However to our knowledge the association of hypothyroidism and central obesity, hypertension, hyperlipidaemia, atherosclerotic heart disease and non insulin dependent diabetes mellitus through insulin resistance mechanics is not studied clearly.

