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**ATHEROSCLEROTIC RENOVASCULAR DISEASE IN  
ELDERLY DIABETICS**

**THESIS  
SUBMITTED IN PARTIAL FULFILLMENT OF  
MASTER DEGREE IN GENERAL MEDICINE**

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بسم الله الرحمن الرحيم

**" و قل رب أدخلني مدخل صدق و  
أخرجني مخرج صدق و اجعل لي من  
لديك سلطانا نصيرا "**

صدق الله العظيم

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## **ABBREVIATIONS**

<b>CABG</b>	coronary artery bypass graft
<b>CAD</b>	coronary artery disease
<b>CHOL</b>	cholesterol
<b>Cr</b>	creatinine
<b>Cr cl</b>	creatinine clearance
<b>Cw</b>	continuous flow doppler
<b>DIA</b>	diastolic
<b>ECM</b>	extracellular matrix
<b>ESRD</b>	end stage renal disease
<b>GAD</b>	glutamic acid decarboxylase
<b>GFR</b>	glomerular filtration rate
<b>HTN</b>	hypertension
<b>IAA</b>	insulin autoantibodies
<b>ICA</b>	islet cell antibodies
<b>ICSA</b>	islet cell surface antibodies
<b>IDDM</b>	insulin dependent diabetes mellitus
<b>IGT</b>	impaired glucose tolerance
<b>IHD</b>	ischemic heart disease
<b>MI</b>	myocardial infarction
<b>MODY</b>	maturity onset diabetes in the young
<b>NIDDM</b>	non- insulin dependent diabetes mellitus
<b>OGTT</b>	oral glucose tolerance test
<b>PAS</b>	periodic acid schiff
<b>PRA</b>	plasma renin activity
<b>PSV</b>	peak systolic velocity
<b>PVD</b>	peripheral vascular disease
<b>RAR</b>	renal aortic ratio
<b>SYS</b>	systolic
<b>TG</b>	triglycerides
<b>TIN</b>	tubulointerstitial nephropathy



# INTRODUCTION

## **INTRODUCTION**

Renal disease is a major cause of morbidity in patients with diabetes and become the leading cause of chronic renal failure in industrial countries, end-stage renal disease occurs in up to 30% of insulin dependent diabetes mellitus (IDDM) patients and accounts for 20% of deaths in patients under the age of 40 years

**(Soldo et al., 1997)**

The renal changes associated with diabetes are complex ranging from early hyperfiltration with increased glomerular filtration rate to late nephrosclerosis and fibrosis with azotemia

**(Joel et al., 1994)**

The risk of renal artery stenosis is greater in diabetics especially non-insulin dependent diabetes mellitus.

**(Sawicki et al., 1991).**

## **INTRODUCTION**

Atherosclerotic renovascular disease is an increasingly important cause of renal failure.

**(Connolly et al., 1994).**

The prevalence of renal artery stenosis in diabetic patients is unknown since no non-invasive and valid screening procedures are available.

**(Sawicki et al., 1991).**

Arteriography has been the gold standard for detecting renal artery stenosis, although it allows direct visualization of the renal artery, it is invasive, risky and expensive.

**(Jeffrey et al., 1995).**

Duplex ultrasound scanning of the renal arteries is an ideal screening test because it is non-invasive and can predict the presence or absence of renal artery stenosis with a high degree of accuracy.

**(Jeffrey et al., 1995).**

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## **AIM OF THE WORK**

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The aim of this work is to study the prevalence of atherosclerotic disease of the renal artery in elderly diabetic patients by non-invasive duplex scan and its relation to atherosclerotic vascular disease in these patients.

# **REVIEW OF LITERATURE**

# **DIABETES MELLITUS**

- DEFINITION**
- CLASSIFICATION**
- AETIOLOGY**
- DIAGNOSIS**