



INTRODUCTION

Macrovascular complications of type 2 DM are due to accelerated atherosclerosis and have an important role in the increased morbidity and mortality suffered by these individuals. Hence early detection of atherosclerotic changes in the sub-clinical phase poses a major turning point in both primary and secondary prevention of cardiovascular disease in the diabetic population. Non-invasive surrogate markers as quantification of CIMT as well as measurement of a number of metabolic and inflammatory markers have been employed however the most predictive, sensitive and cost-effective modality is still to be determined. (*Ahmed et al, 2010*)

Serum visfatin is a diabetes-related proinflammatory adipocytokine which has been found to be higher in type 2 diabetic patients than normoglycemic individuals (*Fukuhara et al, 2007*) and there have been several indications of higher visfatin levels and increased cardiovascular risk in the diabetic population however the available studies are limited (*Jia et al, 2004*). It has been hypothesized that the chronic low-grade inflammatory state prevalent in type 2 diabetes in addition to the increased inflammatory process found in atherosclerotic plaques may be associated with enhanced production of visfatin from inflammatory cells. (*Kadoglou et al, 2010*)



Adiponectin is an adipocyte-derived vasoactive peptide with anti-inflammatory and antiatherosclerotic properties on endothelial cells (*Berndt et al, 2010*). Recently, it was reported that adiponectin could be present on human renal endothelium and glomerular capillary stress in diabetes may promote its shedding with subsequent adiponectinuria. These findings promote urinary adiponectin as a possible marker of diabetic microvascular nephropathy but a recent by (*von Eynatten et al, 2009*) study has suggested that it maybe also related to increased CIMT possibly linking adiponectinuria to increased macrovascular risk as previously established with urinary albumin/creatinine ratio.

Background:

Type 2 diabetes mellitus (T2DM) is strongly associated with increased cardiovascular risk and early detection of subclinical atherosclerosis will facilitate primary prevention of macrovascular complications. The obesity-related adipocytokine known as visfatin and urinary adiponectin levels pose as possible predictive markers of athero-thrombotic complications.



AIM OF THE STUDY

The aim of the study is to compare the sensitivity and predictive value of both serum visfatin and urinary adiponectin for increased common carotid artery intima-media-thickness (reflecting the atherosclerotic burden in diabetic patients) and determine which of these two markers is a more valid and cheaper mean for early detection of sub-clinical atherosclerosis and possibly over-riding the need for radiological assessment in the diabetic population.