THE PREVALENCE OF UNDIAGNOSED CHRONIC KIDNEY DISEASE AMONG DIABETIC PATIENTS AT NNEWI, SOUTH EASTERN NIGERIA.

Diabetic nephropathy (DN) is a common cause of and a dreaded microvascular complication of Diabetes mellitus. It has many modifiable and non modifiable risk factors that contribute to its development and progression. These include hyperglycemia, hypertension, dyslipidemia, obesity, smoking, genetic and racial factors, among others.

The prevalence of DN has been studies extensively in Nigeria but the prevalence of undiagnosed chronic kidney disease has not received adequate attention, this means that many diabetics are unaware of their kidney status and thus are manage by clinicians as uncomplicated diabetes mellitus. This study was aimed at determining the prevalence of undiagnosed chronic kidney disease (CKD) among diabetics.

Three hundred patients with diabetes being managed at the Nnamdi Azikiwe University Teaching Hospital Nnewi in Anambra, South-Eastern Nigeria were studied. The patients were made of 144 males and 156 females with ages ranging between 18 and 90 years. Screening for chronic kidney disease was done using serum creatinine and then calculating the estimated GFR using formula for the modification of diet in renal disease (MDRD). Also they were screened for the presence of microalbuminuria using micral sticks. Diabetic patients not documented to have been diagnosed of CKD in the past, with no history of acute febrile illness, and without known conditions (HIV seropositivity, Sickle cell disease etc.) that would have predisposed them to develop CKD were recruited for this study. One hundred age and sex-matched non diabetics without above exclusion criteria and without any obvious risk factors for CKD were studied as control. Their fasting lipid profile, body mass index (BMI) and blood pressure were evaluated.
The prevalence of clinically significant undiagnosed CKD among diabetics was found to be 32.7%. In the control it was 6.9%. Clinically significant CKD was taken as CKD stages 3 to 5.

Risk factors (obesity, hypertension, microalbuminuria, dyslipidaemia) were found to have prevalence of: obesity 24.7%, systolic hypertension 21.6%, diastolic hypertension 12.8%, hypercholesterolemia 34.7%, low high density lipoprotein (HDL-C) 9.3%, hyperlipoproteinemia (LDL-C) 26.0%, hypertriglyceridemia 21.3% and microalbuminuria 72.0%.

Hypertriglyceridemia and microalbuminuria were significantly associated with CKD. There was female predisposition for development of CKD and duration of diabetes was significantly associated with CKD.

It was concluded that many diabetics were unaware that they have chronic kidney disease therefore routine screening for renal impairment should be advocated for all diabetics.