SUMMARY

This study was carried out between November, 2005 and May, 2006 to evaluate the prevalence of cardiovascular risk factors in non-hypertensive type 2 diabetes mellitus in Jos University Teaching Hospital.

Two hundred and eleven (70 non-hypertensive diabetics, 70 hypertensives and 71 apparently normal) subjects who met the inclusion criteria were recruited. All subjects had detailed clinical examination. Fasting blood samples for serum lipids, glucose and uric acid were collected. Blood samples were also collected for serum creatinine and 2 hours post-prandial glucose. Microalbuminuria was detected using freshly voided urine. Electrocardiography was carried out on all subjects. Echocardiography was carried out on all the non-hypertensive diabetics and the hypertensives, whereas 45 of the normal subjects had echocardiography.

Dyslipidemia was more prevalent in the diabetics compared with the hypertensives and normal controls (82.9% vs 74.3% vs 47.9%). Significant alcohol consumption was more prevalent in the diabetics compared with the controls, that is the hypertensives and normal subjects (8.6% versus 5.7% vs 0%). Cigarette smoking was more prevalent in the non-hypertensive diabetics compared with the controls (7.1% vs 0% vs 0%). Physical inactivity was more prevalent among the diabetics relative to the other groups (55.7% vs 48.6% vs 32.4%). Hyperuricaemia was more prevalent among the hypertensives than the diabetics and normals (27.1% vs 8.6% vs 19.7%). More diabetics had abnormal serum creatinine than the hypertensives and normals groups (14.3% vs 11.4% vs 8.5%). Left ventricular hypertrophy diagnosed electrocardiographically and echocardiographically was more prevalent among the hypertensive (68.6% and 74.3% respectively). The prevalence of microalbuminuria was the same in the diabetics and hypertensives.
but higher than normals (27.2% vs 27.2% vs 12.7%). Using the waist-to-hip ratio, a prevalence of 72.9% was recorded for obesity among the diabetics.

74.3% of the diabetics had poor glycaemic control. Generally, the observed tendency was that most diabetics with cardiovascular risk factors had poor glycaemic control. This relationship was significant for dyslipidaemia and hypertriglyceridaemia. There was significant relationship between increased duration of disease with worsening atherogenic index, obesity, microalbuminuria and hypo HDL-cholesterolaemia in the diabetics. Though a worsening of cardiovascular risk factors was observed with increased disease duration in the hypertensives, this relationship was not significant.

Routine screening of cardiovascular risk factors aimed at institution of a wide spectrum of preventive and corrective measures is recommended in the diabetics; who without hypertension as additional risk have been shown to have cardiovascular risk that supercedes or at best is at par with the hypertensives. Increased diligence would therefore be called for in the management of cardiovascular risk factors in the diabetics.