SUMMARY

Background: Diabetes mellitus (DM) is the commonest endocrine disorder in Nigeria and its prevalence has been rising at an alarming rate in the last two decades. This carries with it a concomitant rise in the prevalence of diabetic complications resulting in increased morbidity and mortality. It is worthy of note that people don’t just develop diabetes overnight, they go through an intermediate, often symptomless, stage known as pre-diabetes (PD) characterized by impaired fasting glucose(IFG) and/or impaired glucose tolerance (IGT). Diabetes/pre-diabetes often co-exists with hypertension probably because they share similar lifestyle risk factors. This association doubles the overall cardiovascular risk.

Aim: This study was designed to determine the pattern of pre-diabetes and its associated risk factors among hypertensive patients attending the General Out-patient Clinic (GOPC) of Federal Medical Centre, (FMC) Owerri, with a view to recommending measures for early detection, management and ultimate reduction in the burden of DM among the study population.

Materials and methods: This was a hospital based cross-sectional study involving 320 hypertensive patients that were consecutively recruited and age and sex matched 320 non-hypertensive, non-diabetic subjects consecutively recruited as control group. The study lasted for four months. Relevant data on demographic features, and risk factors of PD/DM were obtained using a pre-tested, self administered, questionnaires while the anthropometric indices, blood pressure and plasma glucose were done using standard clinical measurements. Data was analyzed using Statistical Package for Social sciences version 15.
Results: The prevalence of PD among the hypertensive patients was 33.1% while that in the control group was 16.2%. IFG, (29.4%, 14.3%) was the commoner pattern for pre-diabetes than IGT, (3.8%, 1.9%) among the study and control groups respectively. Majority of the subjects in the study group were females, belonged to 50-59 years, were traders, Ibos, Christians, married, of low socio-economic class and had primary level of education. Positive family history of DM (OR=52.19, 15.99-170.31), overweight (12.50, 2.37-66.67), obesity (8.33, 2.00-34.48), past cigarette smoking (15.05, 2.38-95.02), current cigarette smoking (7.11, 1.29-39.18) and inadequate physical activity (9.19, 3.07-27.48) were independent risk factors for PD.

Conclusion: This study demonstrated a high prevalence of PD among the study population with IFG being the commoner pattern in this environment. Overweight, obesity, cigarette smoking, inadequate physical activity, hypertension and family history of DM were independent risk factors for prediabetes. Routine blood glucose screening of the hypertensive patients for pre-diabetes and a comprehensive health education on healthy lifestyle practices such as adequate exercise and healthy diet is recommended.