SUMMARY

**Background:** Obesity has been established as a major modifiable risk factor for significant adverse cardiovascular events both in the developed world and the developing countries. A history of obesity in a direct or first degree relative has also been recognized as a risk factor for obesity and cardiovascular disease in the individual undergoing medical investigation.

**Aim:** This hospital based, cross-sectional study was aimed at describing the pattern of cardiovascular risk factors among obese patients and their first degree relatives at the outpatient clinics of Lagos University Teaching Hospital in order to determine what measures to take for early detection of risk factors and prevention of high morbidity due to cardiovascular disease in these individuals.

**Materials and Methods:** The study subjects consisted of 229 obese patients and an equal number of randomly selected first degree relatives. Data was collected over a four month period using a structured interviewer administered questionnaire to get information on socio-demographic characteristics, awareness of obesity, lifestyle practices as well as medical and family history of cardiovascular disease. Anthropometric indices were also measured while blood pressure, fasting blood glucose and fasting lipid profile were determined using standard techniques. The data was analyzed using the statistical package for social sciences version 17.

**Results:** The prevalence of obesity among the first degree relatives was 32.3%. The cardiovascular risk factor with the highest prevalence was dyslipidemia with elevated low density lipoprotein in 95.2% and 94.3% of the obese patients and their first degree relatives respectively, elevated total
cholesterol in 57.2% and 50.7% respectively and low levels of high density lipoprotein in 50.7% and 46.3% respectively. Systolic pre-hypertension was recorded in 42.3% of the obese patients and 38.4% of the relatives while diastolic pre-hypertension was found in 28.8% of the obese patients and 23.6% of the relatives. Among the obese patients, 36.7% had systolic hypertension while 18.4% had diastolic hypertension. Fourteen percent of the first degree relatives had systolic hypertension while 17.5% had diastolic hypertension. Majority of the study respondents had low (<10%) global cardiovascular risk score while 5% had a risk equal to or above 10%.

**Conclusion:** These findings imply that obese individuals as well as their first degree relatives have a high prevalence of other cardiovascular risk factors and thus, are at risk of significant adverse cardiovascular events. It is therefore imperative to always screen obese individuals for other cardiovascular risk factors, and even more pertinent to use the contact with an obese individual as a clinical window of opportunity for early detection and prevention of significant adverse cardiovascular events in their first degree relatives.