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AC067

Adult Cardiology & Clinical Cardiovascular Medicine • Poster Presentation

PATTERN AND DETERMINANTS OF CAROTID ATHEROSCLEROSIS AMONG TYPE 2 DIABETES MELLITUS SUBJECTS IN OGBOMOSO, NIGERIA: (THE CARDIOVASCULAR HEALTH RISK ASSESSMENT IN DIABETES (CHID STUDY)

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Background: Diabetes is associated with many macrovascular complications, including atherosclerotic cardiovascular disease. This study aimed to evaluate the patterns and determinants of carotid atherosclerosis among T2DM subjects and to provide local evidence to inform targeted primary prevention and stroke risk mitigation.

Methodology: It was a cross-sectional study done at the Diabetes clinic of the Ladoke Akintola University of Technology Teaching Hospital between August 2019 and June 2022. Carotid duplex ultrasonography was performed by trained operators using a high-frequency linear-array transducer (7–12 MHz). Carotid atherosclerosis was defined as carotid intima-media thickness >1.1mm. Statistical analysis was performed using IBM SPSS Statistics version 27.0 (Chicago, Ill., USA).

Results: The mean age was 59.3± 10.8 years with 69.0% female gender. Mean systolic blood pressure was 134.8± 21.2 mmHg, with 74% having comorbidity of hypertension clustering together. Carotid atherosclerosis was demonstrated in 67% of study participants, while 61% has plaques in at least one of the carotid arteries. Those with carotid atherosclerosis were significantly older and had a higher left ventricular mass index compared to those without atherosclerosis. Socio-demographic factors like age and waist-hip ratio were significantly associated with carotid atherosclerosis among study participants.

Conclusion: This study shows that carotid atherosclerosis is highly prevalent among T2DM patients in Nigeria. Our findings suggest that middle-aged African diabetics qualify as high-stroke risk patients. In clinical practice, this would imply that clinicians adopt a more proactive approach to stroke prevention through interventions.

Keywords: carotid atherosclerosis, type 2 diabetes mellitus, Nigeria, pattern