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Prevalence of macrovascular disease and associated risk factors in diabetic patients in Rwanda

Emmanuel Ndikubwayo, Jeffrey Dixon, Sibomana Jean Pierre, Niyonsaba Otto and Rwabihama Jean Paul

University of Rwanda, Rwanda

Introduction & Objective: Little is known about the prevalence of macrovascular disease in diabetic patients in Rwanda. No any study done before on macrovascular disease. The objective of our study was to determine the prevalence of macrovascular disease and its associated risk factors in Rwandan diabetic patients.

Method: This study was cross-sectional that was undertaken to evaluate the prevalence of macrovascular disease and associated risk factors among diabetic patients at Kigali University Teaching Hospital and Butare University Teaching Hospital. We enrolled adult diabetic patients who attended the outpatient departments, from 2018-2019. For every patient we have performed twelve lead electrocardiograms and it was done at initial enrollment time and interpreted using Manual Minnesota code. Ankle Brachial Index was calculated using measurements from automated calf sphygmomanometer and every participant was clinically assessed for the presence of cerebrovascular disease, basing on the WHO Monica criteria.

Results: Features of macrovascular disease were found in 32 (21.7%) of the 147 patients: the most common being cerebrovascular disease with 15.6%, followed by peripheral artery disease 8.2%, then coronary heart disease with a prevalence of 2%. The variables associated with cerebrovascular disease were: Gender, being male [p-value 0.02] and presence of coronary heart disease [p-value 0.014 (95% CI)], peripheral vascular disease was associated with duration of diabetes [p-value 0.017 (95% CI)], tobacco smoking [p-value 0.02 (95% CI)], elevated level of total cholesterol [p-value 0.009 (95% CI)] and elevated level of LDL [p-value 0.024 (95% CI)] while coronary heart disease was significantly associated with elevated levels of triglyceride [p-value 0.027 (95% CI)] and the presence of cerebrovascular disease [p-value 0.014 (95% CI)].

Conclusion: Macrovascular disease is common in adult diabetic patients in Rwanda. We need to elaborate a clear protocol on prevention and management of macrovascular disease in diabetic patients.

Biography

Emmanuel Ndikubwayo is from Department of Internal Medicine, School of Medicine, University of Rwanda, Kigali, Rwanda.

ndikubwayo@gmail.com

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