Prevalence and Predictors of Metabolic Syndrome among Diabetic Clinic Attendees in Sokoto, Nigeria

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Abstract : Background: Metabolic syndrome (MetS) is prevalent in patients with diabetes mellitus and a significant risk for major cardiovascular events. Identifying its burden and peculiarities is crucial to preventing complications among those at risk. Aim: This study was conducted to determine the prevalence and predictors of metabolic syndrome among diabetes clinic attendees in Sokoto, Nigeria. Materials and Methods: A cross-sectional study was conducted among 365 patients with type 2 diabetes attending the diabetes clinic of Specialist Hospital, Sokoto, Nigeria. A structured questionnaire was used to obtain data on the respondents' socio-demographic variables, treatment history, and lifestyle. Blood pressure and anthropometric measurements (including weight, height, and waist circumference) were done for the patients. Likewise, biochemical assessment (including fasting plasma glucose, high-density lipoprotein cholesterol (HDL-c), and triglyceride (TG) was done. Metabolic syndrome was defined according to the National Cholesterol Education Program Adult Treatment Panel III (NCEP ATP III). Data were analyzed using the IBM Statistical Package for Social Sciences (SPSS) version 25. Results: The ages of the patients ranged from 30 to 78 (mean = 50.9 ±11.7) years. The overall prevalence of MetS was 57.3%, with a higher prevalence in females (68.1%) than males (43.0%). The most common components of MetS observed were hypertension (69.2%), and elevated fasting plasma glucose (65.7%); while the predictors of MetS were age > 50 years (OR 6.960, 95% CI: 3.836-12.628, $p < 0.001$), female sex (OR 2.300, 95% CI: 1.355-3.903, $p = 0.002$), physical activity (OR 0.214, 95% CI: 0.126-0.363, $p < 0.001$), and overweight/obesity (OR 3.356, 95% CI: 1.838-6.127, $p < 0.001$). Conclusion: Metabolic syndrome is prevalent among patients with type 2 diabetes in Sokoto, Nigeria, and the predictors were age > 50 years, female sex, physical activity, and overweight/obesity. Diabetes care providers should screen their patients for MetS to prevent adverse cardiovascular events.

Keywords : prevalence, predictors, metabolic syndrome, diabetes