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Prevalence of metabolic syndrome and associated factors among diabetic patients in Eastern Nepal

Satish Niraula, Bijendra Rai, Masum Paudel, Robin Maskey, Gyanendra Bahadur Malla
BP Koirala Institute of Health Sciences, Nepal

Background & Objectives: Owing to increased life expectancy, change of nutrition pattern, opting of sedentary lifestyle, and many other factors prevalence of diabetes mellitus (DM) is rising. Along with diabetes, cardiovascular risk factors associated like obesity, high blood pressure (BP) and dyslipidemia which are collectively termed as Metabolic Syndrome (MetS) is also growing. While DM is itself an independent risk factor for development of Cardiovascular Diseases, presence of MetS in DM increases the risk by several folds. This study aims to determine the prevalence of MetS and its components as well as the factors associated with it among Diabetic patients of Eastern Nepal attending GOPD of BPKIHS.

Materials & Methods: This is a descriptive cross-sectional study among new and previously diagnosed diabetic patients attending general OPD of BPKIHS from August 2013 to July 2014. Relevant socio-demographic, lifestyle and clinical information were collected using a semi-structured performa. Revised National Cholesterol Education Program Adult Treatment Panel III (NCEP-ATPIII) definition of metabolic syndrome with ethnic threshold on abdominal obesity was used.

Results: 135 diabetic patients were studied, 116 (85.9%) were found to have MetS, consisting of 56 (48.7%) males and 60 (51.13%) females. 38 (32.76%) participants fulfilled three components, 46 (39.65%) four components while 32 (27.59%) all the five components of MetS as per revised NCEP ATPIII criteria. Regarding each component within the patients having MetS, high waist circumference was present in 109 (94.00%) individuals, followed by high BP in 85 (73.30%), then high triglyceride in 77 (66%) individuals and low HDL in 71 (61.2%) individuals. Lack of dietary control and physical inactivity showed significant association ($p=0.003$ and 0.042 respectively) with MetS.

Conclusion: The study showed that MetS is highly prevalent among diabetic patients, more common in females, with significant association of lifestyle factors like lack of dietary control and physical inactivity. Among the components of MetS central obesity (as indicated by waist circumference) was the most common followed by high BP.

Biography

Satish Niraula is doing his M.D. from B.P. Koirala Institute of Health Sciences, Nepal. He completed his M.B.B.S from Tribhuvan University, Nepal. He is member in Nepal Medical Association, Mountain Medicine Society, Physicians for Social Responsibility and Nepal Red Cross Society.

satishnir@gmail.com

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