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A Comparison of the Prevalence of the Metabolic Syndrome Using Three Proposed Definitions

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Various definitions of metabolic syndrome have been proposed by several organizations. The aim of this study was to analyze the variations in the prevalence of metabolic syndrome in Kopay divisional secretariat division using three proposed definitions and to compare the degree to which participants were being similarly or differently classified by the three definitions. The prevalence of metabolic syndrome was studied in 395 subjects. Definitions proposed by the International Diabetic Federation (IDF), National Cholesterol Education Program Adult Treatment Panel III (NCEP ATP III) and a "unified definition" were used for analysis. The agreement and disparity in the diagnosis of the metabolic syndrome between these definitions were analyzed. According to definitions of IDF, ATPIII and the unified definition, total prevalence of metabolic syndrome was 27.6%, 18.0%, and 32.2%, respectively. The prevalence of metabolic syndrome differs based on the definitions used, 14.9% (IDF), 11.94% (ATPIII) and 23.13% (Unified definition) of the male participants and 34.10% (IDF), 21.07% (ATPIII) and 36.78% (Unified definition) of female participants. The prevalence of metabolic syndrome was high in the female regardless of criteria used ($p<0.05$ in all). Among the people who have metabolic syndrome, 51% in female, 29% in male were classified into metabolic syndrome under all three definitions. Among the participants who were classified as metabolic syndrome subjects using any of the three criteria, 99.0% of male, and 87.1% of female met at least two of the three definitions. The recently introduced unified definition covers all subjectswho were classified as having metabolic syndrome by other two definitions. Prevalence was elevated on applying the unified definition by4.6% (Vs. IDF) and 14.2% (Vs. ATPIII). Increased prevalence of metabolic syndrome reported by unified criteria compared to the IDF criteria was due to the fact that waist circumference was not considered as anessentialindicator in unified criteria. The prevalence was lowered in ATPIII criteria due to its higher cutoff levels for fasting blood sugar and waist circumference.

Keywords: Metabolic syndrome, IDF, ATPIII, Unified definition