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Metabolic syndrome in Mirpurkhas: frequency and key risk factors among adults

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ABSTRACT

Background and Objective: Metabolic syndrome poses a significant public health challenge in developing nations and accounts for the highest mortality and morbidity rates globally. It is associated with an increased risk of developing cardiovascular diseases in individuals of all age groups. This study assessed the risk factors and frequency of metabolic syndrome among adults at Mirpur Khas, Sindh.

Methods: The current cross-sectional study was conducted at the Department of Biochemistry, Bhitai Medical and Dental College, Mirpur Khas, Sindh. A total of 1,000 subjects with clinically suspected metabolic syndrome were enrolled, and their anthropometric measurements, including weight and height, serial blood pressure estimation, blood sugar, cholesterol, high-density lipoprotein (HDL), LDL, and triglyceride levels were taken. The logistic regression was used to establish the correlation between the metabolic syndrome and risk variables.

Results: There were 550 (55%) male and 450 (35%) female participants. The mean age was 43.0 ± 11.2 years. Metabolic syndrome was present in 350 (35%) participants. In our study, we found that obese individuals had an odds ratio (OR) of 15.01, individuals aged ≥ 51 years or older had an OR of 5.91, and overweight participants had an OR of 5.91. These findings indicate that these groups are at a much higher risk of developing metabolic syndrome.

Conclusion: Our findings show that metabolic syndrome is common in our community, with a higher prevalence in females. Key contributing factors include hyperglycemia, hypertension, abdominal obesity, elevated triglycerides, and low HDL levels.

Keywords: Metabolic syndrome, risk factors, anthropometric measurement, blood sugar, lipid profile, Obesity.

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