

Prevalence of Metabolic Syndrome in Adolescents /First Year Students of a Private Sector University in Karachi, Pakistan.



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Abstract

Introduction

Metabolic syndrome is a disorder of energy utilization and storage. According to the International Diabetes Federation, metabolic syndrome in adolescents more than 16 years is defined as “the presence in an individual of central obesity plus any two of the following five risk factors: hypertriglyceridemia, hypertension, low High density lipoprotein and high fasting glucose levels.

It has been reported that around 25 per cent of the world’s adult population suffers from metabolic syndrome. People with metabolic syndrome are twice as likely to die from and three times as likely to get a heart attack or stroke compared with people without the syndrome

The metabolic syndrome is well recognized in adults, and there is convincing evidence that it starts in childhood, with progressive clustering of the various components over time and tracking through adulthood. Therefore it becomes extremely important to know the burden of metabolic syndrome in adolescents in order to implement preventive strategies.

Objective:

The study is designed to determine the prevalence of metabolic syndrome in Adolescent and level of knowledge and practices of adolescents regarding healthy lifestyle in first year students of a private sector university in Karachi

Methodology

It was a Cross-sectional study conducted on 325 healthy first year medical students, ages from 17-19 years studying in a private sector university in Karachi, Pakistan. Data was collected using consecutive sampling. It was a self-administered Questionnaire which was designed to assess the demographic characteristics, knowledge and practices regarding diet and lifestyle of adolescent students.

Height, weight and waist circumference were measured. Analysis of fasting blood samples for Fasting blood sugar, High density lipoprotein and Triglycerides were done by using Automated Biochemistry Analyzer.

Data was analyzed by SPSS 20, Chi square and logistic regression were applied and p value less than 0.05 was considered significant.

Results

A total of 325 adolescents were included in the study, Gender was dominated by females (n=201, 61.8%). Mean age was 18.77 ± 0.45 years. Prevalence of metabolic syndrome was found to be 17.5% in our study sample of which 52.6% were females. Forty six percent adolescents had adequate knowledge about healthy lifestyle but no significant association was found between knowledge status and presence of metabolic syndrome.

Increased weight circumference and high fasting blood sugars were associated with an increased likelihood of exhibiting metabolic syndrome.

Conclusion:

Prevalence of metabolic syndrome is increasing in our adolescent population which demands screening from childhood and early adolescence. Early screening, identification and lifestyle interventions will decrease the morbidity from chronic illnesses like Coronary artery disease and Diabetes mellitus.

Biography

Dr Aiesha has completed her FCPS (Fellow of College of Physicians and Surgeons Pakistan) in Family medicine in 2012. Currently working as Assistant Professor at Ziauddin University since 2013. She is the CME, activity Director for dept of Family medicine. She has published more than 7 papers in reputed journals and has been serving as a faculty member for undergraduate and postgraduate students.