

Prevalence of Metabolic Syndrome among Adult Obese Type 2 Diabetic Subjects

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Abstract : Background: Metabolic syndrome is a cluster of metabolic risk factors including obesity, glucose intolerance, insulin resistance, dyslipidemia and hypertension. Metabolic syndrome in obese and type 2 diabetic subjects increases the risk of cardiovascular diseases (CVD). Globally, the prevalence of metabolic syndrome ranges from 10%-50% and in Pakistan ranges from 18%-46%. The objective of the present study is to estimate the prevalence of metabolic syndrome (MS) in obese type 2 diabetic subjects by using International Diabetes Federation (IDF) and National Cholesterol Education Program-Adult Treatment Panel III (NCEP-ATP III) definitions. Methods: Obese type 2 diabetic subjects and normal healthy subjects of both genders were selected from diabetic clinics and hospitals of various localities of Karachi, Pakistan. The frequency of metabolic syndrome was estimated by the proposed definitions of IDF and NCEP-ATP III. Results: The prevalence of metabolic syndrome using International Diabetes Federation (IDF) definition in obese type 2 diabetic subjects was 85.7%. It is significantly higher ($p < 0.05$) in females (47.1%) as compared to males (38.6%). While, using National Cholesterol Education Program-Adult Treatment Panel III (NCEP-ATP III) definition the overall prevalence of metabolic syndrome in obese type 2 diabetic subjects was 75.7%, the prevalence is significantly higher ($p < 0.05$) in females (45.7%) than males (30.0%). Conclusion: It is concluded that, the overall prevalence of metabolic syndrome is increasing significantly in obese type 2 diabetic subjects by using IDF and NCEP-ATP III definitions. Therefore, it is need to initiate the preventive measures by arranging public awareness programmes to highlight the significance of a healthy lifestyle and emphasis should be given to reduce weight, increase physical activity, and increase intake of healthy low-glycemic-index foods.

Keywords : metabolic syndrome, diabetes mellitus, obesity, IDF, NCEP-ATP III

Conference Title : ICPHCMS 2015 : International Conference on Prehypertension, Hypertension and Cardio Metabolic Syndrome

Conference Location : Venice, Italy

Conference Dates : April 13-14, 2015