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Influence of Smoking and Alcoholism on Predictors of Metabolic Syndrome

Thiluxie, S., Thayananthan, K., Balakumar, S. and Arasaratnam, V.

Department of Biochemistry, Faculty of Medicine, University of Jaffna, Sri Lanka

A study on influence of smoking and alcoholism on predictors of metabolic syndrome in a study population of 101 subjects (age 30 to 50 years) were carried out. In the selected population 28 subjects were with the habits of both smoking ($\geq$ 3 cigarettes per day) and alcohol consumption ($\geq$ 300ml, approx 32% v/v ethanol per day) and 23 were smokers without alcohol consumption and 50 controls (non smoking, non alcoholic). The subjects were generally sedentary workers. An interviewer-administered questionnaire was used for data collection. Self reported data about smoking and alcohol consumption and other relevant information were obtained. Analysis of individual risk factors of metabolic syndrome was carried out based on International Diabetic Federation (IDF) cutoff values for defining metabolic syndrome. The prevalence of BMI above 24kg/m^2 was more in smoking alcoholics (32%) and smokers (26%) than in control (16%) subjects. Similar observations were found with the central obesity (>90cm, 32, 26 and 2%) blood pressure (>140/85, 42, 34 and 16%) and triacylglycerol (>150mg dl^{-1}, 35, 26 and 6%) in smoking alcoholics, smokers and controls respectively. The fasting blood sugar, higher than 115mg dl^{-1} was found in 25, 26 and 10% of the smoking alcoholics, smokers and normal subjects respectively. When the fasting blood glucose is considered almost equal prevalence of elevated levels (>115gdl^{-1}) was observed in smoking alcoholics (25%) and smokers (26%) and 10% of the control subjects had elevated levels. The results reveal that out of 6 parameters considered as the predictors of metabolic syndrome, the smoking alcoholics and smokers showed elevated values in blood pressure, body mass index (BMI), central obesity, triacylglycerol and fasting blood glucose. However when the total cholesterol/HDL ratio was considered the prevalence of elevated (>5) levels were observed in 25, 21 and 10% of the smoking alcoholics, smokers and control subjects respectively.Surprisinglythe results show less correlation between total cholesterol/HDL ratio and smoking and alcoholism. The limitation in this study was that non-smoking alcoholics were not studied. Thus a clear study is needed to correlate smoking and alcoholism with total cholesterol and HDL cholesterol levels and to arrive at a conclusion on the influence of smoking and alcoholism in the predictors of metabolic syndrome.