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Association between Apolipoprotein B/Apolipoprotein A1 ratio, pulse pressure and metabolic syndrome

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Objectives of this study is to evaluate influence of the metabolic syndrome (MS) and its components on pulse pressure (PP) and apolipoprotein B/apolipoprotein A1 (Apo B/Apo A1). A total of 107 persons without any apparent disease were selected. Among these subjects MS was found in 36. One way ANOVA test, multiple comparison test of means and multiple logistic regression analyses are used. The four groups used in ANOVA are men and women with and without MS. The ANOVA F-statistics showed 3.683 with p-value 0.0145. The multiple comparison tests showed differences between subjects with and without MS. The first logistic regression includes gender, PP and Apo B/Apo A1. The results showed that the pulse pressure was the more significant factor that contributes to metabolic syndrome for women than for men. The results showed that PP and Apo B/Apo A1 ratio could be used as complex marker for MS, Fig.1. When the pulse pressure was wide and wriest was greater than 102/88 cm (men/women) the odds ratio was above 1. These two factors could be used to diagnose metabolic syndrome. The same conclusion could be made for wide pulse pressure and triglycerides level greater than 1.7 mmol/l. The results showed that PP and wriest or triglycerides level could be used as indicator of MS. In conclusion, wide pulse pressure with some of the considered clinical and biochemical markers could be used to diagnose MS. The results showed that for simultaneously increase of PP with 5 mm Hg and increase of Apo B/Apo A1 with 0.05045 it was expected about 1.5787 times increase in the odds ratio (OR) of MS. The results indicated relation between PP and increase of OR of MS. The increase of OR of MS with increase of PP and Apo B/Apo A1 is obtained. Increase of PP and Apo B/Apo A1 influences cardiometabolic risk.

Biography

Galya Atanasova has completed her PhD training in Cardiology from Department of Cardiology, Pulmonology and Endocrinology at Pleven Medical University, Bulgaria. She is a General Practitioner and Cardiologist in Trainee at Pleven Medical University, Bulgaria. She specialized in General Medicine from Pleven Medical University, Bulgaria during 1993. She has attended many international events and presented her research work. She did many researches on metabolic syndrome and myocardial infarction of heart.

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