The Relationship between Microalbuminuria and Hyperlipidaemia in subjects with Hypertension Attending Family Practice Centre, University of Sri Jayewardenepura

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Microalbuminuria appears to be a marker of early arterial disease in patients with hypertension. The aim of the study was to evaluate the association of microalbuminuria with hyperlipidaemia & socio-demographic factors. A cross sectional study was carried out among 98 randomly selected non-diabetic hypertensive patients of age group between 35- 85 years attending the family practice centre, University of Sri Jayewardenepura. Blood and urine samples were collected in the morning from patients after 12 hours fasting. Blood pressure, weight and height were measured and socio-demographic characteristics were noted through an interviewer administered questionnaire. The subjects aged above 35 years diagnosed as hypertensive individuals were included in the study. Diagnosed diabetic subjects, subjects whose fasting blood glucose level and urine creatinine level were abnormal and subjects with cardiovascular diseases and kidney diseases were excluded. Those subjects found to have overt proteinuria > 300 mg/g were also excluded. Microalbumin to creatinine ratio (ACR) was used to identify microalbuminaemic subjects. Data evaluation was done by independent sample t-test and spearman correlation. There were 73 females and 25 males. The mean (SD) age of subjects was 62.11 (8.22) years. The prevalence of microalbuminuria was 21 %. From microalbuminuric subjects, 66.6 % were females and 33.3 % were males. There was no significant correlation of microalbuminuria with age (r = 0.01, p = 0.9), and body mass index (r = 0.03, p = 0.8). Statistically significant positive correlations were found between microalbuminuria and total cholesterol (r = 0.5, p = 0.02), and microalbuminuria and LDL (r = 0.4, p = 0.02). The means (SD) of the total cholesterol [204.10 (48.3)], Triglycerides [126.52 (54.9)] and LDL [130.98 (44.35)] of subjects with microalbuminuria were higher when compared to means of total cholesterol [190.09 (38.93)], Triglycerides [107.84 (39.52)] and LDL [118.61 (34.49)] of subjects with normoalbuminuria although they were not statistically significant (p> 0.05). Microalbuminuria was associated with Total cholesterol and LDL. There was no statistically significant association of microalbuminuria with HDL, Triglycerides, age or Body Mass Index.

Keywords: Microalbuminuria, Hyperlipidaemia, Hypertension