Abstract No: 258 *Health Sciences*

Association between hypertension and some known risk factors in a rural community in the district of Kandy

P.V.R. Kumarasiri[1*], U. Ralapanawa[2], H. Balasooriya[1], R. Senevirathne[1], D. Rathnayake[1], C. Abeywardhana[1] and U. Champika[1]

[1]Department of Community Medicine, Faculty of Medicine, University of Peradeniya, Sri Lanka, [2]Department of Medicine, Faculty of Medicine, University of Peradeniya, Sri Lanka

[*]matugama@gmail.com

The increasing number of chronic Non-Communicable Diseases (NCDs), threaten the current health care services in Sri Lanka. Among them, hypertension is a commonly heard condition. This cross sectional study was conducted to determine the association of hypertension with fasting serum lipid levels along with fasting blood sugar and a few selected risk factors in a selected rural community in Kandy.

A sample of 247 hypertensive patients (139=males, 234=females) and 373 age and sex matched controls (74=males, 163=females) were selected from the data list of an on-going NCD prevention and control program conducted by the University of Peradeniya. When it came to males, 137 subjects with normal blood pressure had a mean waist circumference of 81.9cm (12.1) whereas 72 subjects with high blood pressure values had mean a waist circumference of 87.8cm (10.0). P =<0.001. When we considered hip circumference, 137 normal subjects had 86.7 (11.0) of average value and 72 elevated blood pressure subjects had an average value of 90.0 (10.2). P = 0.031. In blood sugar levels 142 of normal subjects had 98.4 (18.4) and 72 of diagnosed hypertensive subjects had 115.0 (50.3) corresponding average values. P = 0.009. When the female subjects were taken into account, waist circumference 230 of normal subjects had 81.58cm (12.0) of average value and 160 of diagnosed hypertension subjects had 84.2 (13.8) of average value. P = 0.0043. When we considered the hip circumference, 230 normal subjects had 93.36cm (10.6) of average value and 160 diagnosed hypertensive subjects had an average value of 95.0 (10.2). P = 0.031. In females, the mean of the metabolic equivalence of time (MET) of the non-hypertensive subjects was higher than the hypertensive subjects and the difference was statistically significant which was P = 0.02. However, dyslipidaemia did not show significant association with hypertension.

The findings of this study clearly indicate that there is a significant association between hypertension and waist circumference, hip circumference, waist: hip ratio and blood sugar levels in males whereas in females, hypertension is significantly associated with waist and hip circumference. In females, the level of physical activity demonstrated a statistically significant association with hypertension but it was not so in males.