

## CP6.

### THE RELATIONSHIP OF CENTRAL OBESITY AND THYROID, STEROID AND SEX HORMONES

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Central Obesity is the deposition of excess fat in the central parts of the body. It is associated with a higher risk of cardiovascular disease. Pathogenesis of central obesity include metabolic, psychological, genetic and endocrine factors. The objective of this study was to investigate the influence of thyroxine, cortisol and progesterone on the development of central obesity.

Two hundred and ninety two subjects (177 females and 115 males) were randomly selected from the electoral lists in the following manner. Of the two divisional secretariat divisions in the Kandy district, the Yatinuwara divisional secretariat division was selected. Out of 95 gramasevaka divisions in the Yatinuwara division 6 gramasevaka divisions were randomly selected. The age range was 16-82 years for males and 16-77 years for females. The anthropometric measurements available for measuring central obesity are skin fold thickness measurements and waist hip circumference ratio. The anthropometric measurements used in our study for assessing central obesity was the waist hip ratio. Waist circumference was measured at the level of the naval, and hip circumference was measured at the level of the greater trochanters. Measurement of thyroxine, cortisol and progesterone were done by radio-immuno assay.

Correlation between waist hip ratio and serum thyroxine, progesterone and cortisol was  $r = -0.039$ ,  $r = -0.349$  and  $r = -0.379$  respectively for males and  $r = -0.112$ ,  $r = -0.159$ ,  $r = -0.153$  respectively for females. In multiple regression analysis cortisol and progesterone were significant inverse predictors of the waist hip ratio in men. (standardised coefficient  $-0.282$  and  $-0.239$  respectively), but not in women. Serum thyroxine was not a predictor of central obesity in either sex.