Abstract

Cardiovascular disease risk of women increases after menopause due to physiological changes occur around the time of menopause, particularly weight gain and transition from pear shaped to apple shaped body in women. This study aimed to compare body composition, blood pressure and physical inactivity as CVD risk factors in healthy postmenopausal women based on body size and shape. This study was conducted as a comparative cross sectional study. Subjects were apparently healthy postmenopausal adult women aged 45-60 years. A total of 168 subjects were recruited and were grouped based on body size and body shape using BMI of 23kg/m^2 and waist to hip ratio of 0.8 as cut off values respectively. The groups were normal weight gynoid (n 42), normal weight android (n 47) and overweight or obese android (n 79). Body composition was derived from Durnin and Womersely equation using skinfolds. Among three groups, overweight or obese android group had significantly increased percentage of body fat, high systolic and diastolic pressure and low physical activity ($p< 0.05$). When both normal weight groups were compared android group had significantly higher systolic pressure but no significance difference in body composition and diastolic pressure ($p< 0.05$). BMI was highly correlated with percentage of body fat, systolic and diastolic pressure and physical activity than waist circumference and waist to hip ratio. In conclusion, overweight or obese android group was at higher risk for CVD due to highest % of body fat, high blood pressure and low physical activity among three groups. Although both normal weight groups had similar body composition, android body shape increases CVD risk. There were significant strong correlation between body composition, blood pressure, physical inactivity and body size rather than body shape in postmenopausal women.

Key words: postmenopausal, gynoid, android, body composition, blood pressure.