ABSTRACT

Introduction: Prevalence of diabetes melitus type 2 in young age is increasing. A study by Khardori (2014b) proved that diabetes patients have better prognosis if detected early and the blood glucose level is controled within normal level since pre-diabetes. Obesity is one of the risk factors of metabolic syndrome and diabetes melitus. The aim of this study is to determine the correlation of waist circumference and fasting blood glucose level.

Method: This analytic observational study with cross-sectional design is done using non probability sampling, accidental sampling type so that collected 51 samples, with gender proportion 64.71% women and 35,71% men. The majority of samples' ages are 56-60 and 66-70 years old. The measurement of waist circumference, fasting blood glucose, body mass index, and age are taken by measuring tape, laboratorium data, weight scales, stature meter and questionnaire.

Result: The result shown that 33 women sample (64.71%) and 17 men sample (33.33%) have waist circumference above normal (<80 cm for woman and <90 cm for man) and 78.43% have fasting blood glucose level above normal (≥100mg/dl). 75.51% of the sample have body mass index above normal (≥25kg/m^2).

Analisis: The Spearman correlation test between waist circumference and fasting blood glucose level shown no correlation (p=0.163 r=0.198).

Conclusion: There is no correlation between waist circumference and fasting blood glucose found in this study.

Keywords: waist circumference, fasting blood glucose level, diabetes melitus type 2, central obesity