ABSTRACT

Background. Diabetes mellitus is a chronic disease with various complication. However, many of those with the disease are unaware of their condition eventually leading to inevitable complication. Among various types of diabetes, 90% suffers type 2 diabetes mellitus. Obesity is the main contributing factor in the pathogenesis of this disease. Body Mass Index (BMI) and waist circumference (WC) are two measurements often used to assess obesity. Both of these measurements have the potential to be a simple examination that could help to show the incidence of diabetes mellitus.

Goals. Determining the relation of body mass index and waist circumference with the incidence of diabetes mellitus in elderly.

Methods. Research is done cross sectionally by acquiring anthropometric and blood sugar measurements in the elderly community.

Results. BMI have no meaningful relationship with the incidence of diabetes mellitus. WC have a meaningful relationship with the incidence of diabetes mellitus (p-value: 0.015, confidence interval: 95%). The cut-off point of WC is 85.25 cm with 63% sensitivity and 60% specificity.

Conclusions. BMI have no meaningful relationship with the incidence of diabetes mellitus while WC have a meaningful relationship with the incidence of diabtes mellitus.

Keywords: body mass index, diabetes mellitus, elderly, waist circumference