



WAIST CIRCUMFERENCE AS THE BEST PREDICTOR OF BLOOD GLUCOSE LEVEL COMPARED WITH BODY MASS INDEX AMONG HEALTHY ADULTS IN SUMEDANG, WEST JAVA, INDONESIA 2020

ABSTRACT

Background: Obesity is strongly related to the increase of blood glucose level hence identified as a predictor of metabolic disease such as Type 2 Diabetes Mellitus. However, the obesity measurement parameters to predict blood glucose level still vary. The aim of this study is to investigate whether waist circumference (WC) or body mass index (BMI) is the best predictor of blood glucose level among healthy adult.

Method: An observational analytic study with cross sectional design was conducted in this study. Participants were 172 men (n=8) and women (n=164) with mean age $47,9 \pm 11,0$ years old. WC and BMI were identified from anthropometric measurement. Pearson correlation test was performed to quantify the correlation between obesity measurement parameters (WC and BMI) and blood glucose level.

Results: Both WC and BMI were significantly and positively correlated with blood glucose level. WC had stronger correlation to the blood glucose level ($r = 0.482$) compared to BMI ($r = 0.241$)

Conclusions: WC is a stronger predictor of blood glucose level when compared with BMI among healthy adults.



Biography – Firda Muthia Elsyanty is a General Practitioner at the Sumedang General Hospital, West Java, Indonesia. She was graduated from Faculty of Medicine of Padjadjaran University in 2017 and obtained her Medical Doctor degree. She is an active member of the Indonesian Doctors Association. She is actively participating in local and national symposiums and workshops. In addition to her clinical experience, she attended clinical practice training in Department of Vascular and Endovascular Surgery of the University Hospital Heidelberg, Germany at 2017. In her spare time, she enjoys traveling, photography and spending time with her family.

Keywords:

Waist circumference, body mass index, blood glucose level

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