Neck Circumference and Lipid Profile on Preeclampsia, is There Any Correlation?

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ABSTRACT

Background: Neck circumference is a new method for differentiating normal and abnormal fat distribution. Increased free fatty acids associated with insulin resistance and endothelial dysfunction caused by increased levels of LDL and TG. This has an important role in the pathogenesis of preeclampsia.
Methods: This research is a cross-sectional study and conducted by measuring neck circumference in pregnant women with preeclampsia and normotension.
Results: There was a significant relationship between neck circumference and LDL levels, while there was no significant relationship between HDL and triglyceride with neck circumference. BMI based on preeclampsia had a significant difference prevalence ratio 1.94 with 95% CI 1.34 – 2.80 and LDL based on preeclampsia has a significant difference with prevalence ratio 2.44 with a 95% CI 0.42 – 1.28.
Conclusion: There is a relationship between neck circumference, increased LDL and BMI obesity with the incidence of preeclampsia. The mean neck circumference in preeclampsia patients was 34.23 ± 2.16 cm with a cut-off value of 32.65 cm. BMI obesity has a significant relationship with preeclampsia.
Keywords: Neck circumference, lipid profile, preeclampsia