ABSTRACT

ASSOCIATION BETWEEN EXPOSURE TO PREECLAMPSIA IN INTRA-UTERINE PERIOD AND LOW BIRTH WEIGHT WITH PREECLAMPSIA IN ADULTHOOD

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Background: The Fetal Origin hypothesis (Barker et al., 2002) that supports a lifelong epidemiological perspective said that there are associations between low birth weight (that can caused by lack of nutrition supply during intra-uterine period) and later cardiovascular disease. According to that perspective, we can conclude that poor nutrition supply during pregnancy that can caused by preeclampsia condition, and infant growth disorders that can be characterized by low birth weight, are associated with later life cardiovascular health risks, one of which is suffering preeclampsia during pregnancy.

Aim: To analyze the association between preeclampsia exposure during intrauterine and low birth weight with preeclampsia in adulthood.

Method: This study was an analytic retrospective with a case-control study. This study observed patients with the effect (case-sample), which was preeclampsia in pregnancy, and the group without effect (control sample), which was normal pregnancy. This study analyzed the risk factors that could explain why cases were affected, which were the preeclampsia exposure in the intra-uterine period and low birth weight.

Result: In 33 people of case-sample, 27.3% had a history of exposure to preeclampsia in the intra-uterine period and 21.2% had low birth weight. In 33 people of control sample, 6.1% had a history of exposure to preeclampsia in the intra-uterine period and 12.1% had low birth weight. Preeclampsia exposure in the intra-uterine period has an association with preeclampsia (p = 0.021; OR = 5.821) and low birth weight doesn’t have association with preeclampsia (p = 0.523).

Conclusion: History of exposure to preeclampsia in the intra-uterine period has an association and with preeclampsia and increase the risk 5,281 times. Low birth weight doesn’t have association with preeclampsia.

Keywords: preeclampsia, intra-uterine, low birth weight