

ABSTRACT

Background: Preeclampsia have increased risk of preterm birth higher than non preeclampsia mother. Preeclampsia reduced uteroplacenta bloodflow caused hipoxic intrauterine that can interfere of fetal development. Various complications can appear either in short term or in long term. One can be asphyxia, infection or neonatal death. **Methods:** This study is an observational analytic research with cross sectional approach. Population of this study is preterm neonates from mother who suffer preeclampsia and non preeclampsia as control. The independent variable is preeclampsia, while the dependent variable are neonatal death, asphyxia and infection. The data was collected from medical record neonates in RSUD Dr. Soetomo from January to December 2017. Sampling is done by total sampling with inclusion and exclusion criteria. Data analyzed by Chi Square (χ^2). **Results:** From 359 sample, 136 neonates was born from preeclampsia mother, while 223 was non preeclampsia. The statistic analisis result showed that there is no significant value of neonatal death (p value=0,061) and infection (p value=0,639). But, there is significant value in asphyxia (p value=0,000; OR = 3,124; 95% CI 2,006-4,866). Then that tree outcomes are gruped for analysis and obtained a significant value (p value=0,000; OR = 2,746; 95% CI 1,738-4,339). **Conclusion:** There is a relationship between preeclampsia with neonatal outcomes in preterm birth.

Keywords: preeclampsia, preterm, neonatal death, asphyxia