

RISK FACTORS FOR NEONATAL MORTALITY DUE TO BIRTH ASPHYXIA IN EAST SUMBA, EAST NUSA TENGGARA

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ABSTRACT

Background: Birth asphyxia is an insult to the fetus or newborn due to failure to breath or breathing poorly leading to decrease oxygen perfusion to various organs. According to World Health Organization, in low-income countries 23% of all neonatal deaths occurred due to birth asphyxia. This study aimed to investigate the risk factors for neonatal mortality due to birth asphyxia in East Sumba, East Nusa Tenggara.

Subjects and Method: This was a case control study conducted at District Health Office of East Sumba and Umbu Rara Meha Waingapu Hospital, East Nusa Tenggara, in March 2017. A total of 130 neonatus were selected for this study by fixed disease sampling, consisting of 65 neonatus with asphyxia (cases) and 65 neonatus without asphyxia (controls). The dependent variable was neonatal mortality due to asphyxia. The independent variables were maternal age, maternal illness history/pregnancy complication, prematurity, coiled umbilical cord. The data were collected from medical record and questionnaire. The data were analyzed by a multiple logistic regression.

Results: The risk of neonatal mortality due to asphyxia increased with maternal age (OR= 2.99; 95% CI= 1.31 to 6.83; p= 0.009), maternal illness history (OR= 2.65; 95% CI= 1.15 to 6.11; p= 0.023), coiled umbilical cord (OR= 0.10; 95% CI= 0.03 to 0.42; p= 0.001), and prematurity (OR= 5.04; 95% CI= 1.51 to 16.81; p= 0.009).

Conclusion: The risk of neonatal mortality due to asphyxia increases with maternal age, maternal illness history, coiled umbilical cord, and prematurity.

Keywords: neonatal mortality, asphyxia, maternal age, illness history, coiled umbilical cord, and prematurity

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