EFFECT OF MECONIUM STAINED AMNIOTIC FLUID ON THE RISK OF INFANTS ASPHYXIA: A META-ANALYSIS

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ABSTRACT

Background: Meconium aspiration syndrome refers to the aspiration of meconium and amniotic fluid by the fetus. It can occur when the fetus is still in the uterus, passing through the birth canal or when it takes its first breath after birth. Meconium aspiration is a serious condition with high morbidity and mortality. This study aimed to examine the effect of meconium stained amniotic fluid on the risk of infants asphyxia.

Subjects and Method: Meta analysis and systematic review was conducted by collecting published articles from PubMed, Google Scholar, Clinical Key, Science Direct, and Springer Link databases. Keywords used risk factor, asphyxia, birth asphyxia, meconium stained amniotic, meconium stained liquor, and cross sectional. The inclusion criteria were full text, using English language, using cross-sectional study design, and reporting adjusted odds ratio. The study population was infants. Intervention was meconium stained amniotic liquid with comparison clean amniotic liquid. The study outcome was asphyxia. The collected articles were selected by PRISMA flow chart. The quantitative data were analyzed by fixed effect model using Revman 5.3.

Results: 7 studies from Ethiopia reported that meconium stained amniotic fluid increased the risk of asphyxia in infants 5.83 (aOR= 5.83; CI 95%= 4.15 to 8.20; p <0.001).

Conclusion: Meconium stained amniotic fluid increases the risk of asphyxia in infants.

Keywords: meconium, amniotic fluid, asphyxia, infants

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