Magnitude of Meconium Stained Amniotic Fluid and Associated Factors among Women Who Gave Birth in North Shoa Zone Hospital's Amhara Region Ethiopia 2022

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Abstract : Background: Meconium-stained amniotic fluid is one of the primary causes of birth asphyxia. Each year, over five million neonatal deaths occur worldwide due to meconium-stained amniotic fluid, with 90% of these deaths due to birth asphyxia. In Ethiopia meconium-stained amniotic fluid is under investigated, specifically in North Shoa Zone Amhara region Ethiopia. Objective: The aim of this study was to assess the magnitude of meconium-stained amniotic fluid and associated factors among women who gave birth in the North Shoa Zone Hospital's Amhara Region, Ethiopia, in 2022. Methods: An institutional-based, cross-sectional study was conducted among 628 women who gave birth at North Shoa Zone Hospitals, Amhara, Ethiopia. The study was conducted from 08/June-08/August 2022. Two-stage cluster sampling was used to recruit study participants. The data was collected by using a structured interview-administered questionnaire and chart review. The collected data was entered into Epi-Data Version 4.6 and exported to SPSS Version 25. Logistics regression was employed, and a p-value <0.05 was considered significant. Result: The magnitude of meconium-stained amniotic fluid was 30.3%. Women presented with normal hematocrit level 83% less likely develop meconium-stained amniotic fluid. Women had mid-upper arm circumference value was less than 22.9cm(AOR=1.9; 95% CI;1.18-3.20), obstructed labor(AOR=3.6; 95% CI;1.48-8.83), prolonged labor \geq 15hr (AOR=7.5; 95% CI ; 7.68-13.3), the premature rapture of the membrane (AOR=1.7; 95% CI; 3.22-7.40), fetal tachycardia(AOR=6.2; 95% CI; 2.41-16.3) and Bradycardia (AOR=3.1; 95% CI;1.93-5.28) were significant association with meconium stained amniotic fluid. Conclusion: The magnitude of meconium-stained amniotic fluid, which was high. In this study, MUAC value <22.9 cm, obstructed and prolonged labor, PROM, bradycardia, and tachycardia were factors associated with meconium-stained amniotic fluid. A follow-up study and pooled similar articles will be mentioned for better evidence, enhancing intrapartum services and strengthening early detection of meconium-stained amniotic fluid for the health of the mother and baby.

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