

MATERNAL GROUP B *STREPTOCOCCUS* RECTO VAGINAL COLONIZATION INCREASES THE ODDS OF STILLBIRTH: EVIDENCE FROM EASTERN ETHIOPIA

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Background: Group B *Streptococcus* (GBS) causes a significant number of stillbirths. Despite this, there is little documented information on the association between stillbirth and pregnant women's GBS recto vaginal colonization in Sub-Saharan Africa. As such, this study was aimed at identifying the association between stillbirth and pregnant women's GBS recto vaginal colonization in Eastern Ethiopia.

Methods: A health facility-based cross sectional study was conducted among 1688 pregnant women who came for delivery services in Harar town, Eastern Ethiopia from Jun' to Oct' in 2016. Data were collected using a pre-tested structured questionnaire and check list for clinical record. Group B *streptococcus* (GBS) positivity of the pregnant women was confirmed by culture of recto vaginal swab using selective media. The association between GBS colonization and stillbirth was examined using multivariable logistic regression analysis. Level of statistical significance was declared at P value <0.05.

Results: Of the 1688 pregnant women who participated in the study, 144 had stillbirths, representing a proportion of 8.53% [(95% CI: 7.19, 9.86)]. GBS colonization at birth was detected in 231 (13.68%; 95% CI: 12.04, 15.32). Of these 144 stillbirths, 59 (40.97%) were from colonized mothers, 72 (59.03%) were from non-colonized mothers. Of these 59 stillbirth from colonized mothers, 32 (54.23%) were intrapartum stillbirth, 27 (45.77%) were antepartum stillbirth occur before exposed to intrapartum antibiotic prophylaxis (IAP). After controlling for potential confounders, the odds of having a stillbirth was 9.08 times higher among recto vaginal GBS colonized pregnant women [AOR= 8.93; 95% CI: 5.47, 14.56].

Conclusions: This study demonstrated significant association between maternal recto vaginal GBS colonization and stillbirth. Efforts to reduce stillbirth need to consider prevention of GBS colonization among pregnant women.

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