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**Prevalence and drug susceptibility pattern of Group B Streptococci (GBS) among pregnant women attending antenatal care at Nekemte Referral Hospital, Nekemte, Ethiopia**

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**Background & Aim:** Maternal colonization with GBS in the genitourinary or gastrointestinal tracts is the primary risk factor for disease. Maternal infections of GBS constitute one of the leading pathogens associated with both early and late-onset neonatal sepsis. The aim of this study was to determine the prevalence and drug susceptibility pattern of Group B Streptococci (GBS) among pregnant women.

**Materials & Methods:** A cross sectional study was conducted at Nekemte Referral Hospital (NRH) between March and May, 2016 on a total of 180 pregnant women. Vaginal swabs were aseptically collected from each pregnant woman using sterile cotton swabs, inoculated in 1.5 ml Todd Hewitt broth (supplemented with colistin and nalidixic acid) and sub-cultured on 5% sheep blood agar. Gram staining, bacitracin sensitivity test, CAMP test and drug susceptibility tests were performed. Data on socio-demographic characteristics and associated risk factors were collected using structured questionnaires. Cleaned and coded data were analyzed by SPSS software version 20. P value <0.05 was used as a significance level.

**Results:** The median age of the participants was 24.5 years (range: 16-38) and 86% participants were urban residents. The total prevalence of maternal GBS colonization from vaginal swab culture was 12.2% (22/180). The prevalence of GBS colonization rate was significantly higher in those pregnant women above 37 weeks of gestation [AOR, 95% CI: 2.1 (1.2, 11.6), P=0.03] and married ones [AOR, 95% CI: 3.2(1.8, 11.6), P<0.021]. 20 (91%) of GBS isolates were sensitive to vancomycin and the highest resistance was observed against penicillin G (77.3%).

**Conclusion:** The prevalence of GBS colonization in this study is significantly high and differed by gestational age and marital status. None of the GBS isolates were resistant to vancomycin but higher resistance was shown against penicillin G. Screening of pregnant women for GBS colonization, large scale longitudinal studies with molecular characterization of GBS in both mothers and neonates is recommended.

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