

P0812 **Group B Streptococcus detection in pregnant women: culture or PCR?**

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**Background:** Group B streptococcus (GBS) has been recognized as a leading cause of severe and possibly life-threatening neonatal infections. Pregnant women are often colonized with GBS in the genitourinary and gastrointestinal tracts, putting their neonates at risk through vertical transmission. As a measure to prevent these severe complications, screening of vaginal and rectal samples obtained from all pregnant women at 35-37 weeks of gestation to identify those at risk, who should receive prophylactic intrapartum antibiotic treatment is recommended. We aimed to evaluate the prevalence of GBS colonization in pregnant women at 35 to 37 weeks of gestation and to compare the performance of a polymerase chain reaction (PCR) assay with the established as gold standard technique, culture method.

**Materials/methods:** Vaginal and rectal samples collected from 452 pregnant between 35 and 37 weeks of gestation, aged from 22 to 38 years old, were assayed by culture and PCR method targeting the *cfb* gene. The results of the PCR assay were not disclosed to the personnel performing the cultures and vice-versa. The performance of the PCR assay was analysed by comparison with the gold standard culture method. Chi-square test was used to perform statistical analysis.

**Results:** No significant differences were found between the vaginal and rectal colonization rates in the population studied. All samples found positive by culture method were confirmed to be positive by PCR assays. However, PCR identified more colonized women than culture method without reaching statistical significance. Specifically, among the 452 samples tested, positive results were identified by PCR in 102 (22.6%) vaginal and 96 (21.2%) rectal specimens compared to 83 (18.4%) and 82 (18.1%) positive vaginal and rectal cultures, respectively. All GBS colonized pregnant women at 35-37 weeks of gestation received intrapartum antimicrobial prophylaxis and no colonized neonates were identified or neonatal diseases in the population studied.

**Conclusions:** PCR proved to be a rapid and efficient GBS screening method although culture method yielded comparable results. A rapid, yet sensitive and specific test for GBS detection is the best option for early detection and effective prevention, especially in women presenting with unknown GBS colonization status.