Presence of group B streptococcus in placenta of infected individuals

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ABSTRACT

Background & Aim: Group B Streptococcus (GBS) is one of the most causes of neonatal infections. It is an important human bacterial pathogen associated with preterm birth, fetal damage, and neonatal mortality. Mechanisms of in uterus infection remained unknown. Study on the presence of GBS in placenta of infected individuals is essential to find out the cause of prenatal infection. This study was designed to evaluate the presence of GBS in the placenta of infected individuals.

Materials & Methods: 80 formalin-fixed and paraffin-embedded placenta tissues from Sarem pathology department were studied in this research. 55 samples belonged to GBS positive individuals (30 samples with chorioamnionitis and 25 without) and 25 samples belonged to GBS negative individuals with chorioamnionitis as control. Infection was detected by taking a vaginal sample during 35-37 week's ingestion and tested by a standard method. All tissues were analyzed using polymerase chain reaction to evaluate the presence of Group B Streptococcus.

Results: This study was conducted by Sarem Cell Research Center (SCRC). GBS Genomic DNA was not detected in any of the extracted DNA from placenta.

Conclusion: Although infection by GBS is a common cause of neonatal diseases the true origin of prenatal infection is not clear yet. More studies should be performed to realize the accurate cause of infection before birth.

Keywords: Group B Streptococcus, Molecular detection, Placenta, Pregnancy

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