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ABSTRACT BOOK



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Biofilm Formation and Antibiotic Susceptibility of Vaginal Group B *Streptococcus* Isolates from Symptomatic Pregnancy

NORSYUHADA ALIAS^{1*}, NUR SYAZWANI OMAR¹, ROESNITA BAHARUDIN²,
ROZIAH HUSIN³, AHMAD MUZAMIR AHMAD MUSTAFA³, HAMIZAH ISMAIL⁴,
HANAN HAMIMI WAHID⁵

¹Department of Biomedical Science, Kulliyah of Allied Health Sciences, International Islamic University Malaysia, 25200 Kuantan, Pahang Malaysia

²Department of Pathology, Hospital Tengku Ampuan Afzan, 25100 Kuantan, Pahang Malaysia

³Department of Obstetrics & Gynaecology, Hospital Tengku Ampuan Afzan, 25100 Kuantan, Pahang, Malaysia

⁴Department of Obstetrics & Gynaecology, Sultan Ahmad Shah Medical Centre @IIUM, Kulliyah of Medicine, International Islamic University, 25200 Kuantan, Pahang, Malaysia

⁵Department of Basic Medical Sciences, Kulliyah of Medicine, International Islamic University Malaysia, 25200 Kuantan, Pahang, Malaysia

*Corresponding author: norsyuhada_alias@iium.edu.my

ABSTRACT

Introduction: Group B *Streptococcus* (GBS) is an important pathogen that colonises the vaginal tracts of pregnant women, increasing the risk of ascending intrauterine infection, preterm birth, and neonatal early- and late-onset disease. In Malaysia, routine antenatal screening for GBS is not practised whereby microbiological investigation is generally limited to symptomatic women, usually at the tertiary stage of pregnancy. Consequently, local data on GBS virulence characteristics and antimicrobial susceptibility remain limited. This study evaluated biofilm-forming capacity and antibiotic susceptibility patterns of GBS isolates from symptomatic pregnant women with term and preterm deliveries. **Materials and methods:** GBS isolates were recovered from high vaginal swabs collected from symptomatic pregnant women attending selected hospitals in Pahang, Malaysia. Biofilm production was qualitatively assessed using the Congo Red agar method. Antimicrobial susceptibility testing was performed using the Kirby–Bauer disc diffusion method against penicillin, vancomycin, erythromycin, and clindamycin. Comparisons between isolates from term and preterm deliveries were analysed using Fisher's exact test. **Results:** Biofilm formation was detected in 22.5% of GBS isolates, with no significant association with pregnancy outcome ($p = 0.476$). Antibiotic susceptibility rates were 77.5% for penicillin, 90% for erythromycin, 85% for vancomycin, and 82.5% for clindamycin. No significant differences in susceptibility patterns were observed between term and preterm deliveries (all $p > 0.05$). **Conclusion:** Among GBS isolates from symptomatic pregnant women, biofilm formation and antibiotic susceptibility were not associated with pregnancy outcome. These findings suggest that GBS infections are multifactorial and highlight the need for broader surveillance and molecular characterisation in Malaysia.

Keywords: Antibiotic susceptibility; biofilm; Group B *Streptococcus*; pregnancy; symptomatic