

Group B streptococcus infection among pregnant women and neonatal colonization rate in patients from Obafemi Awolowo University teaching hospital complex, South western Nigeria

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Studies in some sub-Saharan African countries like Zimbabwe, Malawi, Kenya and Gambia revealed that Group B *Streptococcus* (GBS) is emerging as the main cause of neonatal sepsis and meningitis. However, in Nigeria, information on GBS disease prevalence remains sparse. We sourced to isolate GBS from the rectovaginal and neonatal samples that were obtained from a tertiary hospital in a populated area of Osun state and give an updated information on the antibiotic susceptibility patterns, using demographic and clinical parameters. One hundred and seventy samples were collected from consenting mothers and neonate from June 2016 to January 2017. Ninety-Eight (98) GBS isolates were recovered from vaginal, rectal of the pregnant woman at the point of labour and Umbilical cord of the neonate within 24hrs of birth. cultures for the isolation and identification of Group B Streptococcus (GBS) were carried out using the CDC recommended microbiological methods. The Kirby Bauer disk-diffusion method was employed to determine antibiograms of GBS isolates in accordance with Clinical and Laboratory Standards institute (CLSI). The presence of resistant genes was examined

using PCR . The prevalence rate of GBS maternal and neonatal colonization were 29.4% and 20.6% respectively while 4% of the colonized neonates had nosocomial GBS colonization. There was no significant association between GBS colonization status and age ($p > 0.05$), parity ($p > 0.05$), obstetric risk factors ($p > 0.05$) and sex of neonate. There was no incidence of GBS infection observed. Resistance to augmentin (88.8%), ampicillin (60.2%), penicillin (47%), tetracycline (34.7%), ceftriaxone (19.4%), clindamycin (13.3%), vancomycin (10.2%) and erythromycin (7.1%) were observed. one of the 8 representatives of the multidrug resistant isolates harboured tetM gene while other resistant genes examined were negative in all MDR isolates. High prevalence of maternal and neonatal GBS colonization has been established among pregnant women and neonates in the study area. Nosocomial infection was implicated in GBS colonization among neonates. However further research is called for using larger sample size and multiple curve studies for adequate extrapolation into the general population.

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