

Perinatal transmission of Group B Streptococcal infection at Mandalay 300 Bedded Hospital Maternal and Child Health

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Summary

Group B Streptococcus (GBS) is a leading cause of invasive bacterial infection in newborns and also affects pregnant women. GBS carriage women have potential for transmitting this organism to their newborn infants vertically or rarely by hematogenous dissemination. The objective of this study is to determine the vertical transmission of GBS infection from mothers to fetus. It was hospital based cross sectional descriptive study. 150 pairs of pregnant women and their neonates were studied in Mandalay 300 bedded Hospital between May 2006 and April 2007. Swabs from both vagina and rectum from mothers and ear, nose and umbilicus from neonates were collected and cultured on selective media. Risk factors were investigated by chart review and hygienic status of mothers was assessed by investigators. The overall maternal GBS colonization rate was 16% and perinatal transmission rate was 75% (n=18/24). Significant vertical transmission was observed from colonized mothers to their infants (OR=91.5) (P <0.001). The association between maternal GBS colonization maternal conditions such as prolonged labour, fever and premature rupture of membrane was observed. In this study, Erythromycin and Tetracycline were the most sensitive drugs on GBS. Ampicillin was effective on vaginal colonization only. Penicillin was effective only in ear colonization of neonates. This finding would be helpful to health care providers in management of GBS infection among mothers and infants.