PERINATAL TRANSMISSION OF HEPATITIS B VIRUS INFECTION IN ILE-IFE, SOUTH WESTERN NIGERIA

A. Olaleye¹, O. Kuti², O. Makinde², I. Ujah³, A. Olaleye⁴, O. Badejoko¹, A. Akintayo¹

¹. Department of Obstetrics and Gynecology, Obafemi Awolowo University Teaching Hospital, Ile-Ife, Nigeria
². Department of Obstetrics and Gynecology, Obafemi Awolowo University, Ile-Ife, Nigeria
³. Department of Human Virology, Nigeria Institute of Medical Research, Lagos, Nigeria
⁴. Department of Obstetrics and Gynecology, Premier Specialists' Medical Center, Lagos, Nigeria

Introduction: This study was conducted to quantify the risk of mother to child transmission (MTCT) in maternal HBV infection in a low-resource setting.

Objectives: To determine the seroprevalence, perinatal transmission risk of HBV, and the maternal characteristics influencing it in Ile-Ife, Nigeria.

Method: This cross-sectional study was conducted at the Obafemi Awolowo University Teaching Hospital, Ile-Ife. HBsAg-positive pregnant women identified through routine antenatal screening were followed-up till delivery. Maternal and cord blood samples were obtained at delivery. The sera of each mother-baby pair were analyzed for HBsAg, HBeAg, HBeAb, HBsAb and HBcAb using an immunochromatographic 5-in-1 panel kit. Quantitative HBV-DNA was assessed using a PCR based technique. Intrauterine infection was defined as HBsAg positivity and/or HBV-DNA in neonatal blood. Confidence level was set at 95% (p<0.05).

Results: Of the 716 pregnant women screened 73 (10.2%) were HBsAg-positive. Fifty of these HBsAg-positive women completed the study. Twelve (24%) of their newborns were HBsAg-positive and 36 (72%) had detectable HBV-DNA (>100 copies/ml). Overall, HBV perinatal transmission risk was 72%. High maternal HBV-DNA titre was associated with increased neonatal HBV-DNA titre (p=0.001). Parity, maternal age, and mode of delivery showed no association with perinatal transmission.

Conclusion: The risk of perinatal HBV transmission in Ile-Ife is high, and is increased in the presence of high maternal viremia. Appropriate and cost-effective prophylaxis for HBsAg-positive mothers and their newborns in low resource settings is advocated.