Diagnosis of neonatal meningitis: is it time to use polymerase chain reaction?

ABSTRACT

Group B Streptococcus (GBS) is a predominant causative pathogen of neonatal meningitis that is associated with a high rate of mortality and morbidity. The establishment of antenatal screening and intrapartum chemoprophylaxis has led to a significant reduction in the incidence rate of invasive GBS disease in developed countries. However, these strategies are not routinely practiced in most developing countries. To ensure good recovery of infants affected with GBS, a prompt diagnostic strategy and appropriate therapy are essential. We highlight here the case of a preterm male infant diagnosed with early-onset of GBS meningitis diagnosed by using polymerase chain reaction (PCR) method on the cerebrospinal fluid (CSF) of the infant. Initially the pathogen was not isolated in both blood and CSF cultures as sampling was performed after the administration of antibiotics. Hence, PCR was a crucial diagnostic test in facilitating the detection of the pathogen in CSF. We believe that PCR is a potentially fast and precise diagnostic method for infection in a newborn.