

Towards Eradication of Hepatitis B Infection: What More Can We Do?

Dr Wong Ming Sum Rosanna

Consultant, Department of Paediatrics and Adolescent Medicine, Queen Mary Hospital
Clinical Associate Professor, Department of Paediatrics and Adolescent Medicine,
The University of Hong Kong

Following the universal vaccination program to all newborns since 1988, the incidence of hepatitis B infection has fallen drastically in Hong Kong. Nevertheless, there is chance of immunoprophylaxis failure of infants born to hepatitis B carrier mothers and vertical transmission remains the most important mode of transmission to account for new cases. We have found from a recent multi-centre study that the immunoprophylaxis failure occurred in 1.1% of infants born to mothers with positive HBsAg status. Positive HBeAg and HBV DNA $> 8\log_{10}$ copies/ml at 28-30 weeks were found to be significant predictive factors. Thus, in order to further reduce the vertical transmission of Hepatitis B, pregnant women with positive HBeAg and high HBV DNA load should be identified. Treatment of these women with anti-viral drug can potentially eradicate vertical transmission as shown by a randomized controlled trial using tenofovir 300mg daily starting from the third trimester. It is also important that infants born to HBsAg positive mothers should have post-vaccination serologic testing at 9 to 12 months of age or 1 to 2 months after completion of the vaccination. Infants who remain HBsAg negative and anti-HBs negative should receive extra three doses of Hepatitis B vaccine. Those with positive HBsAg due to immunoprophylaxis failure should be evaluated for chronic liver disease and treated according to protocol. Apart from infants born to carrier mothers, there are special consideration and recommendations on vaccination for other high-risk group such as premature infants and immunocompromised children.