

HEPATITIS B INFECTION CONTROL IN COLOMBIAN AMAZON

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Abstract

Background: Hepatitis B virus (HBV) infection is highly endemic in the Colombian Amazon basin. In Colombia, the universal hepatitis B vaccination in that area has been active since 1993. The program targets children aged under five years. Newborns receive at least three doses, and in 2001, HBV vaccine birth dose was included. This study aimed to evaluate the advances on HBV control in the Colombian Amazon. **Methods:** A population-based cross-sectional study was conducted in children less than 11 years old in rural areas of the Colombian Amazon, in order to assess the current levels of HBV prevalence and evaluate the effectiveness of HBV vaccination. Participants were selected from villages scattered along the Amazon, Putumayo and Loretoyaco Rivers. Blood samples were taken from children. All the samples were examined for surface antigen (HBsAg) and IgG antibodies against core antigen (AntiHBc) of HBV. Data on HBV vaccination status and other risk factors were also collected. **Results:** Blood samples from 1275 children were included in the study. The positivity for IgG AntiHBC and HBsAg was 3.8% and 0.5%, respectively. It was observed that receiving a dose of HBV vaccine within 48 h after birth decreased the risk of HBV infection and carriage by 95%. Being born to an AntiHBc positive mother increased 8 times the risk of HBV infection (OR = 7.8 CI 95% 3.3–10.2) and 7 times the risk of HBsAg carriage (OR = 6.6 CI 95% 2.1–10.1). **Conclusion:** The prevalence of HBV infection and HBsAg carriage continues to decrease among children living in the Colombian Amazon. The high protective effectiveness of an HBV birth dose suggests that perinatal transmission is important in endemic areas of Latin America, an aspect that has not been fully studied in the region.

Keywords

Hepatitis B, Prevalence, Effectiveness of HBV birth dose, Colombia