

Survey on Perinatal Transmission of Hepatitis B and C Viruses in Mongolia

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Background and aims:

Infections of HBV, HCV and HDV are becoming one of the main health concerns in Mongolia. Usually in modern health practices, children's health issues are taken into consideration together with reproductive mother's health. The aim of this work was to study the risk factors of hepatitis infection and transmission of the HBV and HCV from mothers to children.

Materials and methods

We have selected 100 pregnant outpatient women from the Songino-Khairkhan District Health Center, diagnosed primarily as positive for HCV and HBV, by Enzyme Linked Immunosorbent Assay (ELISA). At first, we repeated the analysis to confirm primary data. Infants born from those mothers were analyzed for hepatitis markers from age of 12 months to 3 year old. Due to detection of some risk factors of infection, we have developed a questionnaire. Therefore retrospective method of analysis using Lateral Flow Immunochromatographic Assay has been done with subsequent statistical analysis on obtained data.

Results

From 100 pregnant women, 57% were HBsAg and 42% were anti-HCV positive. 1 patient was positive for both HBsAg and anti-HCV. From all participants, 16% belonged to a age group of 21-25 years old, 37% to 26-30, 25% to 31-35, 15% to 36-40 and 4% to 41-45 years respectively. Among 43 women who were positive for HCV, 20 of them have dentistry at least 2-3 times and 27 used contraception antidote, which could be considered as the risk factors for horizontal transmission. Analysis of all 100 neonates at age of 3-4 months, who were born from anti-HCV and HbsAg positive mothers, showed that 11 were anti-HCV and 6 were HbsAg positive. Repeated analysis of those infected children after 6 months showed that 8 of them became anti-HCV positive and 5 of them became HbsAg negative respectively.

Summary

There is a high risk to get HBV and HCV infection during the dentistry and spiraliu surgical procedures. Approximately 4% of children born from HCV and HBsAg positive mothers are found to be anti-HCV and HBsAg positive.