SUMMARY

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Hepatitis B virus is linked to primary liver cancer and chronic liver diseases. An effective vaccine is available to prevent this infection. Studies so far, have shown that Sri Lanka has an HBsAg carrier rate of less than 1 per cent in the general population. However, few studies have been done to identify prevalence of infection in high risk groups. Thus, the objective of this study was to determine the prevalence of HBV markers mainly in children with thalassaemia and also others receiving regular blood transfusions.

Cases consisted of forty children receiving regular blood transfusions (thalassaemia - 31, haemolytic anaemia - 4, dyserythropoeitic anaemia - 3, enzyme deficiency anaemia - 2). Seven children had been vaccinated against HBV and thirty two were non-vaccinated.

Controls consisted of age group matched forty children with minor ailments who had not received blood transfusions.

Sera were tested for HBsAg by RIA and RPHA (Serodia - Fugirebio, Japan) : anti-HBs by RIA and anti-HBc by EIA (Enzygnost - Behringwerke, Germany).

A significantly higher proportion of cases had HBV markers compared with controls [13 of 40 (32.5 %) vs 2 of 40 (5 %) ; $p < 0.05$, Chi Squared Test]. On considering non-vaccinated cases a significantly higher proportion had HBV markers in comparison with controls [8 of 32 (25 %) vs 2 of 40 (5 %) ; $p < 0.05$, Chi Squared Test]. When vaccinated cases were considered 5 of 7 (71.4 %) had HBV markers of which 4 (57.1 %) had anti-HBs probably as a result of vaccination. One of 40 (2.5 %) cases were positive for HBsAg. None of the controls were positive for HBsAg.

In conclusion, in Sri Lanka thalassaemic children and other multi-transfused children are a high risk group for HBV infection. Thus, these children should receive vaccination to protect against the infection. In addition, the risk of transmission of HBV infection through transfusions should be minimized by the use of voluntary donations, stringent donor selection measures and the use of sensitive screening assays.