

Original Paper

Comparison of antibody level in post hepatitis B vaccination in children with 12-15 and 21-24 months age

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Abstract

Background and Objective: Infection with HBV is the most common chronic viral infection and mortality in children. Prevention of this infection with vaccination is vital. This study was done to compare the antibody level in post hepatitis B vaccination in children with 12-15 and 21-24 months age.

Materials and Methods: This descriptive study was carried out on 186 children with 12-15 (group I) and 21-24 (group II) months age who had not infected with hepatitis B infection in Bandarabbas Iran during 2009. The parents were HbsAg negative, without immunodeficiency diseases and did not receive hepatitis vaccination, blood or blood products transfusion. Age, gender, birth weight, breast feeding duration and gestational age were recorded for each child. Hepatitis B antibody level was measured with ELISA method. Data were analyzed using SPSS-16 and student t-test.

Results: Antibody level in group I (231 mIU/ml) was significantly higher than group II (142.9 mIU/ml) ($P < 0.05$). There was not significant differences between males and females. Antibody level was not significantly correlated with body weight, gestational age and breast feeding duration. Antibody level lower than 10 mIU/ml were observed in 4.34% of group I and 20.8% of group II. This difference was significant ($P < 0.05$).

Conclusion: This study showed that the protective effect of vaccination reduced after six months of final dosage.

Keywords: Hepatitis B, Vaccine, Antibody, Child

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