Study on The Efficacy of Hepatitis B Immunization in children aged 9 to 60 months in samples from Baghdad

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Abstract

Background : Hepatitis B Virus (HBV) is one of the most common chronic viral infections. Universal immunization against HBV is considered to be the best way of prevention of HBV infection. This study was conducted for the first time among Iraqi children below five years of age to determine the level anti- HBs antibody after primary vaccination.

Objectives: This study aimed to evaluate the level of the adequacy of seroconversion when hepatitis B vaccine is given at 0, 1 and 6 months as per WHO schedule among children under five years of age in Baghdad, Iraq.

Methods : A total 568serum samples obtained from healthy children received three doses of recombinant Hepatitis B vaccinefrom Jan. to Nov. 2016 , the serum samples were analyzed by VIDAS for the quantitative detection of anti-hepatitis B surface antigens.

Results:results showed that (488) 86%children had protect anti-hepatitis B surface antigens (≥ 10 IU/L) and (80) 14% children had inadequate levels of antibodies (≤10 IU/L) ,the geometric mean titers for ant-HBs were 208 IU/L with standard deviation 147 IU/L, the Karkh district had no significant differences in the mean titer of anti-HBS antibody, the female had high titers of HBs against vaccination as compared that of males ($P \leq 0.05$).

Conclusion :The vaccination program has beenproven efficacy in children under five years of age living in Baghdad, the results showed that anti-HBS antibody titer may decrease over time after vaccination , finally , along with preventionand control strategies , ongoing investigation and monitoring antibodies level against HBV in children and other ranges are recommended.

Keyword : HBV , vaccine, Immune response , Baghdad

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