

Evaluation of the Virological Status of the Family Members of Chronic HBV Patients and Possible Vaccination

Introduction: Hepatitis B virus (HBV) is the most common chronic viral infection in the world and represents a major global healthcare challenge with significant morbidity and mortality. The Hepatitis B vaccine (HepB) has been available since the early 1980s and is considered a breakthrough in the global effort to eradicate the virus. It is highly immunogenic and reduces morbidity and mortality related to HBV.

Aim of the work: To assess the virologic status of the family members and householders of chronic HBV

patients, b) assess immunological response after various durations of hepatitis B vaccination, c) vaccinating of the non-immune family members and d) to identify causes of decreased immunogenicity of HBV vaccination.

Subjects and methods: This is a cross-sectional study on 104 chronic hepatitis B (CHB) cases recorded at the Unit of National Committee for Control of Viral Hepatitis (NCCVH) in Fayoum General Hospital and managed according to Egyptian guidelines for HBV treatment and 455 of their family members were

categorized to vaccinated and non-vaccinated groups and tested for hepatitis B virologic status.

Results: Regarding the immunogenicity of the HepB vaccine our study estimated 72.9% seropositive results among vaccinated participants with a significant reduction of the titer with increasing the age and the time

since the last vaccination dose. The overall prevalence rate of HBsAg among household / close contacts was 10.65% (47/445) of the examined participants and interfamilial spread was detected in (27.8%) of the families included.

Conclusion: The low rate of infection transmission among children reveals the effectiveness of the universal vaccination programs but the presence of non-immune subjects after vaccination spots to the importance of post-vaccination tests to ensure the response to the vaccine and the introduction of booster vaccination if needed especially in high-risk groups.

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