FACTORS FOR PREDICTING SUCCESSFUL IMMUNE RESPONSE TO HEPATITIS B VACCINATION IN HIV-1 INFECTED PATIENTS

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Abstract. This study aimed to determine the predicting factors for successful hepatitis B vaccination among HIV-1 infected patients. A prospective study was conducted among HIV-1 infected patients who had negative HBV serologies. Anti-HBs antibody was evaluated one month after completing a 3-injection course of hepatitis B vaccine. Patients who had an anti-HBs antibody level >10 mIU/ml were defined as responders. There were 65 patients with a mean age of 39±8.5 years, 68% were females. Fifty-seven (88%) patients had received antiretroviral therapy for a mean (SD) duration of 26.1 (22.3) months and 75% of these had an HIV-1 RNA count <50 copies/ml. The mean (SD) CD4 cell count and percentage at the time of vaccination were 345 (194) cells/mm^3 and 16 (7) %, respectively. Thirty patients (46%) were responders. Compared to non-responders, responders had a higher mean CD4 cell count ($p = 0.047$) and a trend toward a younger age ($p = 0.052$). On multivariate analysis, younger age ($p = 0.049$) and higher CD4 cell count ($p = 0.048$) were predictors for successful response to hepatitis B vaccination. Determination of antibody levels after vaccination in HIV-infected patients is warranted.

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