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

Prayut Ungulkraiwit¹, Yongyuth Jongjirawisan¹, Kalayanee Atamasirikul², and Somnuek Sungkanuparph¹

¹Department of Medicine, ²Department of Pathology, Faculty of Medicine Ramathibodi Hospital, Mahidol University, Bangkok, Thailand

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/mm³ 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.