Hepatitis B Vaccination

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Madam, Doctors are considered at higher risk of acquiring the hepatitis B infection because of their greater exposure to the blood and other body fluids. Hepatitis B vaccine offers good protection against the disease but immunological response varies with age, sex and immune status of the individual. Similarly antibody levels achieved following successful immunization, fall gradually in subsequent years[1,2]. To know the immunological response, we selected 82 doctors vaccinated against hepatitis B. Seventy-six (93%) showed antibodies and 6 (7%) showed no response. Of 6 non-seroconverters, 4 were HBs Ag negative, while 2 samples could not be tested because of loss of sera. Among 76 seroconverters, 62 (82%) developed antibodies titre above 100 IU/ml, 11(14%) between 10-100 lU/mi and 3(4%) below 10 IU/ml; similar results are not uncommon. In a study on medical students in Birmingham (77%) had anti HBs titre above and in 23% below 100 IU/ml[3]. Traditionally it is recommended as antibody response below 10 IU/ml does not provide any protection and immune status of a person having antibody titre between 10-100 IU/ml is not long lasting. Therefore, all individuals having antibody% level lower than 100 IU/mi should receive a booster dose[4]. However, recent studies suggest that although successful immunization does not result in complete protective antibody levels and those exposed may get infected, but this will rarely be associated with acute hepatitis. Longer follow-up is needed to guide policy, but in the absence of development of acute infection and carrier status in immunized population, there seems to be no reason to recommend booster vaccination as a public health measure[5]. Considering high natural exposure rate to the infection in our country[6] cost of the vaccination and significant failure rate, it is suggested that all doctors should first be screened for HBs Ag and corresponding antibodies and only those negative for both should be vaccinated.

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