Turk J Gastroenterol 2006; 17 (3): 244-245

LETTERS TO THE EDITOR
EDİTÖRE MEKTUP
The importance of hepatitis B prophylaxis in health care workers

Sağlık çalışanlarında hepatit B profilaksisinin önemi

To the Editor

Hepatitis B virus (HBV) causes much of the morbidity and mortality from acute and chronic liver disease worldwide. HBV infection is one of the most important problems in Turkey and the world since it leads to chronic hepatitis, cirrhosis and hepatocellular carcinoma (HCC). HBV is usually transmitted by inoculation of infected blood or blood products (percutaneous) or by sexual contact and delivery, and transmission can also be horizontal. Hepatitis B is spread predominantly by the percutaneous route. As a result, health care workers – doctors, nurses and other medical staff - are at high risk (1-4).

This study included a questionnaire administered among 300 health care workers in Ondokuz Mayıs University School of Medicine. We queried department, age, sex, hepatitis B vaccine status and specific antibody to hepatitis B surface antigen (AntiHBs). Statistical analysis was accomplished utilizing SPSS 11.0 for Windows.

One hundred and thirty-three doctors, 58 nurses, 43 intern doctors, and 66 personnel were studied (151 males, 149 females). The mean age was 27 years (19-50). Two hundred and twenty-seven of the workers were vaccinated, 47 unvaccinated, 24 had past infection and 2 were hepatitis B surface antigen (HbsAg) carriers. The antibody rates were not known in 73 of the 227 vaccinated individuals and in 39 of the 47 unvaccinated individuals. Of 227 vaccinated staff, 198 had three doses at 0, 1 and 6 months and 29 had four doses at 0, 1, 2 and 12 months. Prophylaxis rate according to profession are shown in Table 1.

Table 1. Prophylaxis rates according to employment

	Vaccinated	Unvaccinated	Having past infection	Carrier
Doctors	107 (35.7%)	16 (5.3%)	9 (3%)	1 (0.3%)
Nurses	42 (14.0%)	8 (2.7%)	8 (2.7%)	0
Intern doctors	38 (13.6%)	4 (1.3%)	1 (0.3%)	0
Personnel	40 (13.4%)	19 (6.3%)	6 (2%)	1 (0.3%)
Total	227 (75.7%)	47 (15.7%)	24 (8%)	2 (0.6%)

In our study, 106 (35.2%) of staff working in internal departments were vaccinated and 17 (5.6%) were unvaccinated, 121 (40.5%) of staff working in surgical departments were vaccinated and 30 (10.1%) were unvaccinated.

The rate of HBV infection in health care workers exposed to a patient or the blood of a patient infected with HBV is 30% and surgical operation accidental needle stick rate is 5-10% (6). When we consider these results, the rate of unvaccinated staff in surgical departments (10.1%) is very high.

In our country, the seroprevalence of HBV infection is mostly studied in high-risk groups, especially in health care workers. Hepatitis B surface antigen (HBsAg) positivity is reported as a mean of 8% (3.5-16.4) and antiHBs as a mean of 40% (17.9-52.9) (7). In this study, antiHBs positivity was found as approximately 45%. In most of the studies, seropositivity in health care workers is twice as high compared with control groups.

In some studies, seropositivity was found to be higher in surgical departments, but we were unable to show these rates in our study.

Address for correspondence: Engin KELKİTLİ
Department of Internal Medicine, Ondokuz Mayıs University, Faculty of Medicine, 55139, Samsun, Turkey
Phone: +90 362 438 28 39 • Fax: +90 362 457 60 41
E-mail: engink@omu.edu.tr

Manuscript received: 03.06.2004 **Accepted:** 10.05.2006

The education of HBsAg-positive patients and of health care workers regarding transmission route of HBV and means of its prevention is very important. In this study, the rate of unvaccinated staff (15.7%) as well as the rate of those vaccinated but who did not learn their antiHBs results (32.1%) (Figure 1) highlights the importance of education. Since the complications of HBV can be prevented with vaccine and since health care workers are at high risk, the vaccination of the staff is of great importance. Thus, these findings show that an education program about vaccination, especially the importance of the repeat doses, must be given to health care workers to prevent HBV infection.

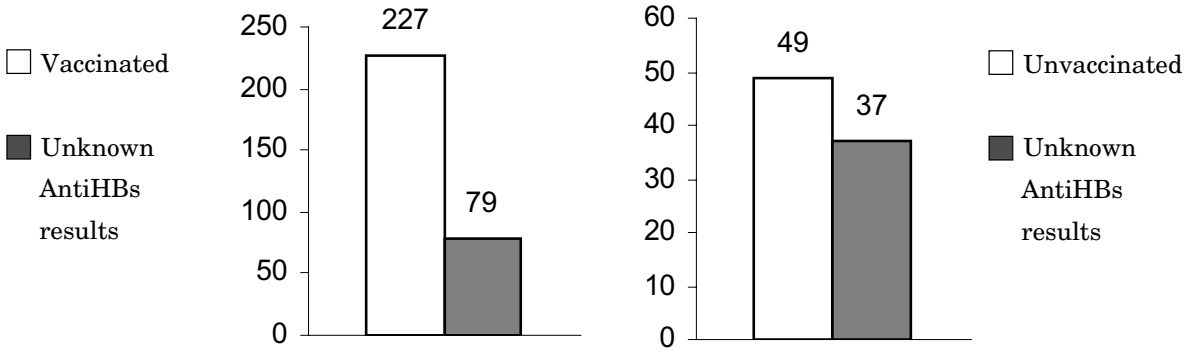

Figure 1. The rates of vaccinated and unvaccinated staff unaware of their antiHBs results

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Engin KELKİTLİ, Bahattin YILMAZ,
Müge KARAOĞLANOĞLU, Mehmet TURGUT

Department of Internal Medicine, Ondokuz Mayıs University Faculty of Medicine, Samsun