



Risk factors of hepatitis B infection: Health policy makers should be aware of their importance in each community

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This editorial tries to emphasize and bold one of the main original article published in this issue by Ozer et al which describes the prevalence of HBV in a population of Turkish people.

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Despite the availability of an effective vaccine, Hepatitis B virus (HBV) infection still remains a foremost health problem. Undoubtedly, finding the key routes of hepatitis transmission from the point of prevention in every country, specifically in endemic regions, is of high priority. Such efforts are especially important given that many infected patients with hepatitis are asymptomatic (1, 2). Iran and Turkey are located in the Middle East, and HBV prevalence varies from intermediate to high in most countries in this region. In most countries across the world, the epidemiology of HBV infection has changed after the integration of HBV vaccination in infants and high-risk groups (3-6). The most frequent risk factors of HBV infection are familial contact, blood transfusion, hospitalization, surgery, and sexual contact (7, 8). Ozor *et al.* presented a series of valuable data concerning the risk factors of HBV infection in a general population of Turkey (9). They described that individuals with close famil-

ial contact with HBsAg-positive patients face the greatest risk of acute hepatitis B infection in Turkey. Because Ozor *et al.* did not find a relationship between the disease and other risk factors, any generalization of the risk factors of acquiring HBV infection to the general population is inappropriate. Most HBV-infected patients are asymptomatic, and acquiring the infection at an early age is generally associated with no symptoms.

HBV is transmitted through both vertical and horizontal routes. Although vertical routes have both been very common in Turkey and Iran, nowadays the horizontal routes are much more important (8). In other words, Iran and Turkey have many similarities in HBV transmission. Specifically, although familial contact with HBV-infected patients may play an important role in horizontal HBV transmission, the vertical transmission still remains as a prominent role in infected families (7, 8). The transition from vertical to horizontal transmission of HBV has indeed occurred, and, consequently, we should change our strategy for controlling HBV infection in our communities. Sexual transmission is the most important mode of HBV transmission in several developed countries, and it is an important risk factor of HCV and HBV infection in

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Iran and Turkey (7, 8, 10, 11). Some groups, such as health-care workers, especially surgeons, nurses, and dentists; policemen; barbers; and drivers, are at higher risk of acquiring HBV infection in our region (7). Barbers are a high-risk group for HBV infection in Turkey as well (12). The main goal in determining high-risk occupations is preventing HBV transmission among these groups.

Other studies recommend the extension of HBV vaccinations in infant and high risk group, screening during pregnancy, and implementing additional strategies such as adding the injection of hepatitis B immunoglobulin (HBIG) to the routine vaccination in neonates of mother HBs Ag positive, extension of vaccination in adults (1, 13-15). Consequently, after several years it seems that the primary vertical route—mothers—has shifted to horizontal routes of HBV transmission, particularly in our region.

References

1. Alavian SM, Gooya MM, Hajarizadeh B, Esteghamati AR, Moeinzadeh AM, Haghazali M, et al. Mass Vaccination Campaign against Hepatitis B in Adolescents in Iran: Estimating Coverage using Administrative Data. *Hepat Mon.* 2009;**9**(3):189-95.
2. Alavian SM. Ministry of Health in Iran Is Serious about Controlling Hepatitis B. *Hepat Mon.* 2007;**7**(1):3-5.
3. Alavian SM. Hepatitis B virus infection in Iran; Changing the epidemiology. *Iran J Clin Infect Dis.* 2010;**5**(1):51-61.
4. Alavian SM, Fallahian F, Bagheri-Lankarani K. The Changing Epidemiology of Viral Hepatitis B in Iran. *J Gastrointest Liver Dis.* 2007;**16**(4):403-6.
5. Alavian SM, Hajarizadeh B, Ahmadzad Asl M, Kabir A, Bagheri Lankarani K. Hepatitis B Virus Infection in Iran: A Systematic Review. *Hepat Mon.* 2008;**8**(4):281-94.
6. Azarkar Z, Sharifzadeh GHR. Efficacy of HBV Vaccination in Children with Thalassemia Major, South Khorasan, Iran. *Iran Red Cres Med J.* 2009;**11**(3):318-20.
7. Sali SH, Bashtar R, Alavian SM. Risk Factors in Chronic Hepatitis B Infection: A Case-control Study. *Hepat Mon.* 2005;**5**(4):109-15.
8. Vahid T, Alavian SM, Kabir A, Kafaee J, Yektaparast B. Hepatitis B Prevalence and Risk Factors in Blood Donors in Ghazvin, IR Iran. *Hepat Mon.* 2005;**5**(4):117-22.
9. Ozer A, Yakupogullari Y, Beytur A, Beytur L, Koroglu M, Salman F, et al. Risk Factors for Hepatitis B Virus Infection in Turkey: A Population-Based, Case-Control Study. *Hepat Mon.* 2011;**11**(4):263-8.
10. Fallahian F, Najafi A, Alavian SM. Intravenous Drug Use: The Predominant Risk Factors for Hepatitis C Virus Infection. *Shiraz E-Med J.* 2010;**11**(4):209-18.
11. Alavian SM, Gholami B, Masarrat S. Hepatitis C risk factors in Iranian volunteer blood donors: A case-control study. *J Gastroenterol Hepatol.* 2002;**17**(10):1092-7.
12. Candan F, Alagozlu H, Poyraz O, Sumer H. Prevalence of hepatitis B and C virus infection in barbers in the Sivas region of Turkey. *Occup Med (Lond).* 2002;**52**(1):31-4.
13. Alavian SM, Zamiri N, Gooya MM, Tehrani A, Heydari ST, Lankarani KB. Hepatitis B vaccination of adolescents: A report on the national program in Iran. *J Public Health Policy.* 2010;**31**(4):478-93.
14. Zamani F, Fallahian F, Hashemi F, Shamsaei Z, Alavian SM. Immune response to hepatitis B vaccine in health-care workers. *Saudi J Kidney Dis Transpl.* 2011;**22**(1):179-84.
15. Alavian SM, Izadi M, Zare AA, Lankarani MM, Assari S, Vardi MM. Survey of the level of anti-HBs antibody titer in vaccinated Iranian general dentists. *Spec Care Dentist.* 2008;**28**(6):265-70.