

The impact of HBV vaccination on Brazilian adolescents requires more attention

O impacto da vacinação contra HBV entre adolescentes brasileiros requer mais atenção

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Dear Sir,

We read with great interest the article by Scaraveli et al.¹ recently published in your distinguished journal. Hepatitis B and C are the main causes of liver disease in the world, involving extensive morbidity and mortality^{2,3,4}. There are major differences in these infections between different areas of the world^{2,5}. Population-based studies are needed to better understand the issue in the community. We wish to call readers' attention to several key points. First, the study appears to have underestimated HCV and HBV infection rates because it failed to include children not enrolled in school and/or homeless children, who tend to be exposed to higher risk of infection. Prevalence rates for HCV and HBV infection are higher in street children⁶; if the authors had enrolled the general population of adolescents in the study, they might have produced a more accurate estimate, as reported previously in Brazil (8.5%)⁷. The students' participation rate in the study was not mentioned, and it would have been better to evaluate vaccination coverage before studying the vaccine's efficacy. In addition, it is necessary to know the long-term efficacy of vaccination, especially among adolescents. It would also be interesting to know whether there were any HBV-positive children among those with detectable anti-HBs. Subgroup analysis according to vaccination status would also be more informative of the vaccine's efficacy in Brazilians.

The study could have estimated differences in HCV and HBV infection between males and females, as it did for different kinds of schools, indicating the impact of socioeconomic status on HCV and HBV prevalence. We believe that other reasons should be found for the low HBV prevalence. Blood transfusion is not an age-dependent event. In addition, it is known that hemophilia and thalassemia patients receive blood and blood products during childhood. The group at highest risk of acquiring HCV infection is intravenous drug users (IDUs)⁸. The mean age of IDUs is more than 16 years⁹, and no one in their

study was older than 16. This is one reason for the lack of HCV infection in the study sample. Finally, we wish to add that for adolescents, HBV vaccination is cost-effective and can improve control of HBV infection in the community¹⁰.

Contributors

S. M. Alavian prepared the preliminary draft and final version. S.-H. Aalaei-Andabili contributed to preparation of the preliminary draft.

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1. Scaraveli NG, Passos AM, Voigt AR, Livramento A, Tonial G, Treitinger A, et al. Seroprevalence of hepatitis B and hepatitis C markers in adolescents in Southern Brazil. *Cad Saúde Pública* 2011; 27:753-8.
2. Alavian SM, Ahmadzad-Asl M, Lankarani KB, Shahbabaie MA, Bahrami Ahmadi A, Kabir A. Hepatitis C infection in the general population of Iran: a systematic review. *Hepat Mon* 2009; 9:211-23.
3. Ataei B, Tayeri K, Kassaian N, Farajzadegan Z, Babak A. Hepatitis B and C among patients infected with human immunodeficiency virus in Isfahan, Iran: seroprevalence and associated factors. *Hepat Mon* 2010; 10:188-92.
4. Nokhodian Z, Kassaian N, Ataei B, Javadi AA, Shoaie P, Farajzadegan Z, et al. Hepatitis B markers in Isfahan, Central Iran: a population-based study. *Hepat Mon* 2009; 9:12-6.
5. Uyar Y, Cabar C, Balci A. Seroprevalence of Hepatitis B virus among pregnant women in Northern Turkey. *Hepat Mon* 2009; 9:146-9.
6. Vahdani P, Hosseini-Moghaddam SM, Family A, Moheb-Dezfouli R. Prevalence of HBV, HCV, HIV and syphilis among homeless subjects older than fifteen years in Tehran. *Arch Iran Med* 2009; 12:483-7.
7. Aquino JA, Pegado KA, Barros LP, Machado LF. Soroprevalência de infecções por vírus da hepatite B e vírus da hepatite C em indivíduos do Estado do Pará. *Rev Soc Bras Med Trop* 2008; 41:334-7.
8. Alavian SM, Gholami B, Masarrat S. Hepatitis C risk factors in Iranian volunteer blood donors: a case-control study. *J Gastroenterol Hepatol* 2002; 17:1092-7.
9. Umar M, Bushra H, Ahmad M, Khurram M, Usman S, Arif M, et al. Hepatitis C in Pakistan: a review of available data. *Hepat Mon* 2010; 10:205-14.
10. 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; 9:189-95.

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