

Epidemiology of Hepatitis B Virus Infection and the Main Risk Factors in Pakistan Needs More Attention

Sir,

I read with interest the article published by Sheikh *et al.*^[1] in the *Saudi Journal of Gastroenterology* recently. Hepatitis B virus (HBV) infection is a serious global public health problem in the world, especially in developing countries.^[2] The authors reported the epidemiology of chronic HBV in the Balochistan province of Pakistan, demonstrating a high rate of seroprevalence. However, the study has certain shortcomings. In their study, around 22% of those who were asked to enroll in the study declined to participate, the cause of which may be important for any judgment regarding the real prevalence of HBV infection. Declining to participate in the study could possibly be related to the fact that the knowledge of HBsAg seropositivity is more common in people declining to participate in such epidemiological studies.^[3] The prevalence of HBV infection increases with increasing age^[4] and the lower response rate in the older population may support this opinion, thus reflecting a selection bias.

Evaluation of risk factors in HBV-infected people is important for designing the strategies to control the disease. The authors presented the frequency of the main risk factors in HBV seropositive cases. Perhaps it may have been better to compare with HBV seronegative ones in the study group for finding the odds ratio for every risk factor. The authors failed to consider the contribution of risk factors, such as

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hospitalization, tattooing, facial shaving by barbers, and using glass syringes in administering therapeutic injections, that are important for HBV transmission in Pakistan.^[5]

The authors found that there is heterogeneity in the frequency of HBV infection in different parts of Balochistan province of Pakistan.^[1] Balochistan borders Sistan in Iran, which showed the highest prevalence of HBV in Iran in 1996.^[3] It should be noted here that there has been migration of people from Sistan and Balochistan of Iran to Golestan province during the recent 20 years, and certainly migration and travel can affect the epidemiology of HBV infection in the world.

Additionally, the authors tested the enrolled subjects for IgM anti-HBcAb which can be positive in patients with reactivation of chronic hepatitis B infection (and not just acute HBV infection) and as such its positivity cannot exclude chronic infection. The authors failed to test for IgG anti-HBc Ab that persists lifelong, which could have clarified acute from true chronic cases.

Finally, given the high rate of HBV seropositivity in the region, it would be interesting and worthwhile to study the impact of relationship in seropositive cases in order to understand the prevalence of familial aggregation in HBV infection in the country. Certainly, control of HBV infection should become a national imperative in every country, wherein we need to primarily understand the real prevalence of infection and the main associated risk factors in the community. Only then can the control of HBV infection be undertaken.

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