

Immunization of Rescuers against Hepatitis A Virus Infection in Disasterous Areas

Dear Editor,

Discussing the relevance of immunization of foreigner rescuers to Haiti people, in the recent disaster devastating this country, Ghorbani *et al.*¹ in their Editorial have proposed that all rescuers need to be vaccinated against Hepatitis A Virus (HAV) infection. As it is addressed in the above-mentioned article, rescuers who came from developed countries were less likely to be seropositive for HAV infection; so it is reasonable that we consider vaccination for all these rescuers entering Haiti and other areas with the same hygienic conditions. Although, as declared in the mentioned debate, it seems logical that vaccination of travelers to the developing countries is likely to prevent outbreaks in the national scale, evidence barely can support this presumption; current data proposes that vaccination of travelers to HAV prevalent areas, despite its high value on preventing infection in the vaccinated people, has little effect on national disease rates.²

As confirmed above, vaccination is a useful method to prevent HAV infection in travelers to endemic areas including rescuers to Haiti; however, because such disasters usually occur unexpectedly, a question raises about the effectiveness of vaccination for rescuers: how long it takes time from vaccination to develop protective levels of antibodies by rescuers immune system. It is estimated that people who are administered vaccine can be assumed protected just after 4 weeks after receiving the first vaccine dose.² Although antibodies can be detectable after 2 weeks post vaccination in the majority of people, there is no mention how many of them can be considered protected. So it seems logical to consider new alternatives for immunization concomitant with vaccination for rescuers during the time interval between vaccination and vaccine-induced protection development.

It is established that administering within 2 weeks after an exposure to HAV, immunoglobulin (IG) is up to 90% effective in preventing HAV infection.² Although seronegative rescuers have had no exposure to the virus before traveling to the prevalent areas, because of the time interval between vaccination and

immunization which is inevitably quite limited in disastrous conditions, we probably need to consider IG for rescuers, most especially those from developed countries. Because of the very rare serious adverse events reported after IG administration, the only populations we propose to be excluded from IG administration are rescuers with IgA deficiency; and if they are seronegative for HAV, they should be banned to enter such areas until vaccination provides enough protection.

However, the question about the relevance of routine HAV vaccination among rescuers from non-developed countries in which HAV are prevalent remains obscure. It is believed that in the developing countries, nearly all people have had hepatitis A infection by adulthood.³ Although we did not find any special guidelines on this issue, previous debates suggest that serologic testing for hepatitis A before vaccination is likely to be cost effective for these persons.⁴

At the end, since as like HAV, hepatitis B virus infection is also more likely to occur in the developing countries, we propose that health authorities consider the combination hepatitis A–hepatitis B vaccine for rescuers who travel to disastrous areas such as Haiti.

Keywords: Immunization; Rescuers; Hepatitis A Virus; Disaster

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