

Association of hepatitis E virus with an outbreak of hepatitis at a military training camp in Nepal.

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Association of hepatitis E virus with an outbreak of hepatitis at a military training camp in Nepal.

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Abstract

From 29 January 1995 to 15 March 1995, an outbreak of hepatitis occurred among 692 soldiers at an isolated training camp 25 km east of Kathmandu. Thirty-two cases occurred approximately 8 weeks after arrival of soldiers at the camp. To determine the etiology of the outbreak, patient sera were examined for evidence of infection with hepatitis A, B, C, and E viruses using commercially available enzyme-linked immunosorbent assay (ELISA) kits. The polymerase chain reaction (PCR) was used to detect hepatitis E virus (HEV) RNA. Evidence of recent infection (IgM to HEV and/or HEV RNA) was found in all but two patients, whereas none had evidence of recent infection with hepatitis A, B, or C viruses. Therefore, the outbreak was attributed to HEV. Fecally contaminated drinking water was suspected as the source of the outbreak. To determine the extent of HEV infections among those without clinical hepatitis, sera from the remaining soldiers were examined for markers of HEV infection. Evidence of past infection (IgG to HEV in the absence of IgM or HEV RNA) was found among 204 soldiers (prevalence = 30%), leaving 488 individuals susceptible to infection at the onset of the outbreak. Evidence of recent infection was found among another 83 individuals. We conclude that most exposed, susceptible soldiers sustained HEV infection without experiencing overt hepatitis. If the levels of virus inoculum and prior immunity in this population were typical, inapparent infection may be the usual adult response to virus exposure in an endemic area.

References

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