

Background: Hepatitis E, caused by hepatitis E virus (HEV), accounts for 50% of acute hepatitis cases in India. We report an outbreak of hepatitis E in Shimla, India, in 2015-2016. Methods: ICMR-National Institute of Virology (NIV), Pune, received two batches of water samples from Shimla in January 2016 to test for the presence of enterically transmitted hepatitis viruses. Subsequently, 57 icterus patients were tested for various markers of hepatotropic viruses, i.e. anti-HEV IgM/IgG, anti-hepatitis A virus (anti-HAV) IgM/IgG antibodies and HEV RNA. Water samples were screened for HEV and HAV RNA followed by phylogenetic analysis. Results: Overall, 48/57 patients availing municipal water had evidence of HEV infection, detected by serology and RT-PCR. All the water samples tested positive for HEV and HAV RNA, while the patients were negative for anti-HAV IgM antibody, indicating no recent HAV infection. Phylogenetic analysis confirmed the aetiological agent of the current outbreak to be HEV genotype 1. Conclusions: Serology and RT-PCR confirmed HEV as the aetiology of the outbreak. The absence of new cases of hepatitis A, despite the presence of HAV in the water supply, could be due to previously acquired immunity. Sewage contamination of water leading to faecal-oral transmission of HEV still remains a concern, thus emphasising the need for a vaccination/control strategy.