

Jaundice Outbreak in Biratnagar Municipality of Eastern Nepal

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Jaundice Outbreak in Biratnagar Municipality of Eastern Nepal: A Microbiological perspective

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Abstract

Background and Objectives: Hepatitis is a common cause of jaundice. Hepatitis A and Hepatitis E are enterically transmitted viral diseases. This study investigated an outbreak of viral hepatitis at Biratnagar, Morang district, Nepal, during April 2014.

Materials & Methods: An expert team from Microbiology and Public health of BPKIHS inspected the area and blood samples from 90 suspected cases of jaundice were obtained and subjected for IgM and IgG antibody detection against HAV and HEV. Water samples from 10 different areas of affected region were also collected and checked for presence of coliform by membrane filtration method to confirm the suspicion of fecal contamination of water supply.

Results: An outbreak Hepatitis E and Hepatitis A occurred in Biratnagar. Out of 90 blood samples, 45 were reactive for hepatitis E IgM, nine were reactive for Hepatitis A IgM. Three samples among these were reactive for both Hepatitis A and Hepatitis E. The liver function tests of the positive cases were deranged while the negative cases had normal LFT. Among the 10 water samples, five of them grew coliforms which confirmed the fecal contamination of drinking water supply.

Conclusion: A large outbreak of Hepatitis A and Hepatitis E occurred in a Biratnagar which had spread through the drinking of contaminated water. The outbreak was confirmed both by Epidemiology and Disease Control Division of Nepal government and BPKIHS which led to the identification of source and control of the outbreak.

Keywords: Jaundice, HAV, HEV.

References

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