

# **An investigation of an outbreak of viral hepatitis B in modasa town, gujarat, India.**

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### **An investigation of an outbreak of viral hepatitis B in modasa town, gujarat, India.**

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## **Abstract**

**Background:** Most outbreaks of viral hepatitis in India are caused by hepatitis E. Recently in the year 2009, Modasa town of Sabarkantha district in Gujarat witnessed the outbreak of hepatitis B.

**Purpose:** An attempt was made to study the outbreak clinically and serologically, to estimate the seropositivity of hepatitis B Virus among the cases and their contacts and to know the seroprevalence of hepatitis B envelope antigen (HBeAg) and IgM antibody against hepatitis B core antigen (IgM HBcAb) out of all the Hepatitis B surface Antigen (HBsAg) positive ones.

**Materials and methods:** Eight hundred and fifty-six (856) cases and 1145 contacts were evaluated for hepatitis B markers namely HBsAg, HBeAg and IgM HBcAb by enzyme-linked immuno Sorbent Assay (ELISA) test.

**Results:** This outbreak of viral hepatitis B in Modasa, Gujarat was most likely due to unsafe injection practices. Evidence in support of this was collected by Government authorities. Most of the patients and approximately 40% of the surveyed population gave history of injections in last 1.5-6 months. Total 664/856 (77.57%) cases and 20/1145 (1.75%) contacts were found to be positive for HBsAg. 53.41% of the positive cases and 52.93% of the positive contacts were HBeAg-positive and thus in a highly infectious stage.

**Conclusions:** Inadequately sterilized needles and syringes are an important cause of transmission of hepatitis B in India. Our data reflects the high positivity rate of a hepatitis B outbreak due to such unethical practices. There is a need to strengthen the routine surveillance system, and to organise a health education campaign targeting all health care workers including private practitioners, especially those working in rural areas, as well as the public at large, to take all possible measures to prevent this often fatal infection.

**Keywords:** Hepatitis B markers; Outbreak; Recycled syringes

## **Reference**

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