

## **Hepatitis E: intrafamilial transmission versus waterborne spread**

<https://www.ncbi.nlm.nih.gov/pubmed/7890884>

### **Cited in:**

J Hepatol. 1994 Nov;21(5):718-23.

## **Hepatitis E: intrafamilial transmission versus waterborne spread**

Aggarwal R<sup>1</sup>, Naik SR.

<sup>1</sup> Department of Gastroenterology, Sanjay Gandhi Postgraduate Institute of Medical Sciences, Lucknow, India.

### **Abstract**

The relative significance of intrafamilial transmission and continued water contamination in the spread of hepatitis E is not known. To resolve this question, two surveys were conducted during a large bimodal waterborne epidemic of hepatitis E in Kanpur, India, affecting an estimated 79,000 persons: i) April 1991: covering 420 houses (60 houses each in seven municipal wards) selected using multistage sampling and random number tables, and ii) May 1992: covering the same families in five municipal wards with incidence rates exceeding 1.5% in the first survey. The number of affected cases in each family and the time of onset of disease in each case were recorded. The time interval between the first ('index') case and the subsequent ('later') case(s) in each family was calculated. The temporal relationship of the occurrence of cases was correlated with the time of control of water contamination. One hundred and eleven hepatitis cases occurred in the 343 families (with 2018 members) studied. Eighty-one of these were single or first cases in their families. Twenty-two 'later' cases occurred within 2 weeks (minimum incubation period of hepatitis E) of the 'index' cases and could not be due to intrafamilial transmission. Thus, 103 of 111 (92.8%) cases were due to primary waterborne infection. Eight 'later' cases (7.2% of 111) that occurred 2-6 weeks after the index cases could be due either to direct spread or to intrafamilial transmission. No 'later' case occurred more than 6 weeks after the 'index' cases. New cases stopped appearing 9 weeks (upper limit of incubation period of hepatitis E) after steps to check water contamination were taken.

### **References**

Tandon, B.N., Joshi, Y.K., Jain, S.K., Gandhi, B.M., Mathiesen, L.R., Tandon, H.D. An epidemic of non-A, non-B hepatitis in North India. Indian J Med Res. 1982;75:739-744.