Intrafamilial Transmission of Hepatitis C Virus

Dear Editor,

The chronic viral hepatitis caused by hepatitis C virus (HCV) is one of the most important health issues of today. Nearly 200 million people are infected with HCV all over the world. Epidemiological research indicates that the most important transmission route of the disease is by parenteral means, which can be incurred by transfusion of blood or blood products, intravenous drug use, occupational injuries by needles or conjunctival transmission, hemodialysis and organ transplantation.

Sixty-five index cases with chronic hepatitis C infection and their 264 family contacts were studied in order to determine the risk factors associated with HCV in the intrafamilial transmission in our study. Of the family contacts, 49 were spouses and the other members were mother, father, siblings and children. The anti-HCV frequency was found to be 4.1% in spouses and 1.5% in the remaining family members. In the national studies, it was reported that the rate of transmission to spouses is around 7%. It is already known that sexual, vertical or horizontal route is responsible from the intrafamilial transmission of HCV. In the studies of sexual and other intrafamilial contacts of the virus infected cases, it was found that HCV infection rate was higher in spouses than in the non-sexual contacts. Several studies have shown that the rate of transmission from HCV infected index cases increases for spouses as the duration of exposure is prolonged. It was concluded that in marriages exceeding 15 years, this rate would be much higher. In the present study, the four anti-HCV positive contacts included two spouses. The marital status of both positive spouses was up to more than 30 years.

The duration of exposure for anti-HCV positive spouses with the index cases was significantly higher than anti-HCV negative spouses (P=0.021). The anti-HCV rates between the whole family members of index group and the healthy blood donor group were similar (1.66%). Therefore, it can be concluded that the intrafamilial transmission rate of HCV is similar to the rate of transmission in healthy subjects. However, the duration of exposure with anti-HCV positive index cases is a significant risk factor particularly for spouses in the intrafamilial transmission.

References


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Received: 12-05-05
Accepted: 03-03-06