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Rate of Subclinical Hepatitis A Virus Infection in Adult HIV-1-Infected Patients

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Hepatitis A virus (HAV) is usually transmitted orally through contaminated food or water (1,2). It can also be transmitted person-to-person as a sexually transmitted disease (STD) in homosexual men (3-5). We encountered an outbreak of acute HAV infection in HIV-1-infected homosexual men living in the Tokyo Metropolitan area from August 1998 through September 1999 (6). We here report the rate of subclinical HAV infection in adult HIV-1-infected cases.

A total of 404 HIV-1-infected patients visited the ambulant clinic in September 1999. Among them, 137 patients were homosexual men and 51 (38%) of these homosexual patients had anti-HAV IgG antibodies.

Twenty-three of these patients had experienced typical clinical symptoms of acute HAV infection, such as fever, general fatigue, nausea, vomiting, and jaundice, in the previous year. The diagnosis was confirmed by the presence of anti-HAV IgM antibodies in cases presenting with clinical symptoms.

Sera from 28 additional patients had been stored since January 1998 (this outbreak started in August 1998). They had not experienced any clinical manifestations of HAV infection. However, serological tests revealed that 17 patients among them had the IgG antibodies at that time; the remaining 11 patients did not. Accordingly, the 11 patients were seroconverted despite having no clinical symptoms during this period. Consequently, it was calculated that 23 plus 11 (i.e., 34 patients; 24.8% of the 137 homosexual men) were infected with HAV in this outbreak. The rate of subclinical infection was 32.3% (95% confidence interval [CI]: 16.6%-48.0%) in adult HIV-1-infected patients.

The characteristics of these patients are listed in Table 1. There was no significant difference between HAV infection manifest and non-manifest groups with respect to age, CD4 counts, CD8 counts, and anti-HIV-1 treatment. The HIV-1 viral load of patients with clinical manifestation was significantly higher than that of patients with subclinical HAV infection. However, analysis of the symptomatic patients revealed no correlation between severity of symptoms and HIV-1 viral load (data not shown). In geographical areas of high prevalence, most children infected are infected early in life, and such infection is generally asymptomatic, while initial infection in adulthood results in greater clinical severity. The rate of clinically manifest cases among HAV- infected cases in HIV-1-infected patients reported here was the almost same as that in adult non-HIV cases (7), i.e., the immunocompromised status of HIV-infected patients did not enhance the clinical manifestation.

Table 1. Demographic characteristics of HIV-1-infected homosexual subjects with HAV infection

variables		symptomatic HAV infection	subclinical HAV infection
no. of patients		23	11
age	mean±SD	34.8±8.1	33.2±5.6
	(range)	(22-54)	(26-45)
stage (HIV)	asymptomatic	23	11
CD4+ T cell (/μl)	mean±SD	459±142	437±235
	(range)	(173-734)	(169-872)
CD8+ T cell (/μl)	mean±SD	759±296	881±440
	(range)	(316-1611)	(465-1828)
HIV-1 viral load (/ml)	median	4.8×10^3	1.6×10^3
	(range)	(<400-8.6×10^5)	(<400-3.4×10^3)
receive anti-HIV therapy			
	yes (%)	48%	73%

Data were obtained at the onset of symptoms in symptomatic patients and in January 1999 in subclinical patients.

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