that the transmission of PCR product. This finding suggests Only specific primers hep35 and hep36 (was investigated by using integron-WA7593 and WA7593TC1 sonnei element. flanked upstream by an IS Ecp1-514 Emerging Infectious Diseases • www.cdc.gov/eid • Vol. 13, No. 3, March 2007

PCR amplifications were performed with primers from the internal regions of \( \text{bla}_{\text{CTX-M}} \) gene and primers for insertion sequences \( \text{ISEcp1} \) and IS903 (4,5). Positive PCR products were obtained with primers \( \text{ISEcp1F} \) and CTX2 (943 bp); no amplified product was produced with primers CTX1 and IS903R. Sequencing of a 943-bp amplicon showed that \( \text{bla}_{\text{CTX-M15}} \) was flanked upstream by an ISEcp1-like element.

The presence of an integron in \( S. \) sonnei WA7593 and WA7593TC1 was investigated by using integron-specific primers hep35 and hep36 (2). Only \( S. \) sonnei WA7593 produced a PCR product. This finding suggests that the transmission of \( \text{bla}_{\text{CTX-M15}} \) is not by integron-mediated transfer. A further 162 \( Shigella \) spp. and 260 \( Salmonella \) spp. isolated from 2003 through 2005 were also screened for ESBL production; no further isolates were identified.

The presence of a CTX-M-type, ESBL-producing isolate is rarely reported in the United States. The only other reference was from a multistate study in 2001–2002 that identified CTX-M type from \( E. \) coli isolates from urine, sputum, and blood (6). No further reports about CTX-M–producing organisms have been disseminated. Our investigation suggests that CTX-M–type ESBLs may spread throughout the United States through infected travelers. This finding is notable because \( S. \) sonnei is a common enteric pathogen. Our results further emphasize that travelers from others parts of the world can introduce highly mobile and clinically important resistance mechanisms into the community. The spread of CTX-M ESBLs may be faster and more widespread than previously thought; therefore, CTX-M type should be taken seriously as a surveillance target in the United States, especially in patients with a history of travel outside North America.

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seroprevalence have been described in detail elsewhere (4). Briefly, all inhabitants >15 years of age were eligible for the survey. After giving their informed consent, the participants were interviewed by using a standard verbal questionnaire, in French or in a local language, during door-to-door visits. Blood samples were collected by peripheral venipuncture, and serum was screened for antibodies to HCV by using an enzyme immunoassay (INNOTEST HCV Ab IV, Innogenetics, Ghent, Belgium). Samples with indeterminate results were retested. All positive and twice-indeterminate samples were confirmed with a third-generation line immunoassay (INNO-LIA HCV Ab III update, Innogenetics). Serologic screening for HIV infection was based on an enzyme immunoassay (Murex HIV-1.2.O, Abbott, Rungis, France). All positive samples were confirmed by using a line immunoassay (INNO-LIA HIV-1+2, Innogenetics).

Among the 484 participants, 256 were women (52.9%), and the median age was 34 years (interquartile range 23–52 years). Most participants (93.6%) were Bantus; the remainder were pygmies. Seven persons refused venipuncture after the interview, and 1 sample could not be analyzed. These 8 persons did not differ from the rest of the study population in term of sex (50.0% women vs. 47.1% women), but they were slightly younger (median, 26.8 years vs. 34.9 years). Of the 476 available samples, respectively 19 (4.0%) had indeterminate HCV serologic results, and 5 (1.1%) had indeterminate HIV serologic results. The overall seroprevalence rates were 21.0% (95% confidence interval [CI] 17.4%–24.9%) for HCV and 7.4% (95% CI 5.2%–10.1%) for HIV. Only 3 patients (0.6%) had positive results for both infections: a man 29 years of age and 2 women ages 36 and 52 years.

The Figure shows the seroprevalence rates of HCV and HIV according to sex and age. Multivariate random-effects logistic regression analyses showed different risk factors for the 2 infections. The HCV seroprevalence was associated with age (<45 vs. ≥45 years, odds ratio [OR] 13.04; 95% CI 6.73–25.30; p<0.001), sex (men vs. women, OR 2.02; 95% CI 1.17–3.47; p = 0.01) and the ethnic group (Bantus vs. pygmies, OR 10.98; 95% CI 1.31–92.42; p = 0.03). In contrast, the HIV seroprevalence was higher in women than in men (OR 10.22; 95% CI 3.19–32.80; p<0.001).

HIV/HCV coinfection is therefore rare in this general population, which lives in an area where both HCV and HIV are endemic. This finding could be related to the dissimilar epidemiologic patterns of the 2 infections. Indeed, HIV infection mainly affects young persons, especially young women, while HCV infection is more frequent in older persons of both sexes. We have previously postulated that HIV is likely to be transmitted by the sexual route, in a context of commercial logging and the extensive and complex sexual networks it induces (4). In contrast, the route of HCV transmission is unclear. HCV seropositivity was not associated with a history of blood transfusion, injections, surgery, scarification, or tattooing. Intravenous drug use was not investigated in our study but was likely to be infrequent. Although sexual transmission could not be ruled out, especially between regular partners, the shape of the seroprevalence curves and the lack of association with HIV infection, syphilis, or other sexually transmitted infections suggests that this mode of transmission is inefficient, in keeping with other reports (5,6). Our seroprevalence curves and the study location are consistent with the hypothesis that frequent iatrogenic transmission occurred during mass medical campaigns conducted before 1960 (7).

The rate of HCV coinfection among the HIV-infected subjects in our study (8.6%) is much lower than the overall rate (25%–30%) in North America and Europe (1,2), where intravenous drug use is a major risk factor for both
infections (8,9). This rate was even in
the lower range of values found
among HIV-infected heterosexual
persons in industrialized countries
(9%–27%) (2). Our results therefore
suggest that the high seroprevalence
rates of HIV and HCV in Africa will
not necessarily result in a high preva-
ence of HIV/HCV coinfection.

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LETTERS

Amebic Liver Abscess in HIV-
infected Patients,
Republic of Korea

To the Editor: Amebic liver
abscess (ALA) is the most common
extraintestinal complication of
amebic infection. Although loss of cellular
immunity is thought to play a role in
infection by the pathogen, whether
HIV infection is also a risk factor for
invasive amebiasis is controversial
(1–3). ALA in HIV-infected patients
has not been well characterized,
although several case series have been
reported (2,4). We report the role of
HIV infection status in ALA in an area
where ALA is not endemic and the
clinical features of ALA in HIV-
infected patients.

All patients with ALA at Seoul
National University Hospital (SNUH)
from January 1990 through December
2005 were identified; some have been
previously reported (5). SNUH is a
1,600-bed, university-affiliated teach-
ing hospital and the largest referral
center for HIV/AIDS in the Republic
of Korea. The diagnostic criteria for
ALA were radiologic evidence of
intrahepatic abscess, trophozoites of
Entamoeba histolytica in fluid aspir-
ated from an abscess, or absence of
bacteria and fungi in aspirated
fluid and a titer ≥128 in an indirect
hemagglutination assay (IHA) for
E. histolytica.

Of 31 patients with ALA at SNUH from 1990 through 2005, 10
(32%) were HIV positive. The propor-
tion of HIV-infected patients among
patients with ALA increased signifi-
cantly with time (linear-by-linear
association, p<0.001) (Figure). Of 10
patients from 1998 through 2005, 8
(80%) were HIV positive. Except for
2 patients with a history of travel to an
ALA-endemic area, 88% of the
patients were HIV positive.

Median age of the 10 HIV-posi-
tive patients with ALA was 34.5 years
(range 29–54 years); all patients were
male. Four had a homosexual orienta-
tion, 4 had a heterosexual orienta-
tion, and 2 had an unknown sexual orienta-
tion. Fever (100%) was the most com-
mon symptom, and abdominal tender-
ness (90%) and diarrhea (50%) were
frequently observed. Median leuko-
cyte count was 9,000/mm³ (range
3,410–16,700/mm³), and median CD4
cell count was 279/mm³ (range
40–370/mm³). Eight patients had
abscesses in the right lobe of the liver
and 2 had abscesses in both lobes; 8
patients had 1 abscess and 2 had mul-
tiple abscesses. Median size of
abscesses was 7.25 cm (range 3–12
cm). In 5 patients, pleural effusion
was observed in chest radiographs.
IHA titer was ≥128 in 10 patients and
≥512 in 8 patients. Median days to
defervescence was 2 (range 1–5
days). In 2 patients, perforation of
the abscess into the abdominal cavity
was a complication. No patients died or
had relapses.

Early in the AIDS pandemic,
some studies reported that the preva-
ience of invasive amebiasis was not
increased in patients with HIV infec-
tion (1,6). However, recent reports of
ALA associated with HIV infection
have increased. Studies in Taiwan
demonstrated that invasive amebiasis,
including ALA, is on the increase in
HIV-infected patients in disease-
endemic areas (2,7).