INCIDENT HCV INFECTIONS IN THE SWISS HIV COHORT STUDY: NATURAL HISTORY AND TREATMENT OUTCOMES

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BACKGROUND

- We recently observed dramatic changes in the hepatitis C virus (HCV) infection epidemic in the Swiss HIV Cohort Study (SHCS), including an 18-fold increase in men who have sex with men (MSM)1.
- In selected HCV-infected patients, sustained virologic response (SVR) rates of 60–80% have been observed if antiviral therapy was initiated within 24 weeks after HCV diagnosis2.
- The long-term trends in outcomes of HCV infections are largely unknown.
- HCV reinfections after spontaneous clearance or successful treatment seem to be frequent in HIV-infected MSM3.

OBJECTIVES

- To study the natural history and treatment outcome of HCV infections between 1991 and 2012 in a nationwide cohort.
- To compare HCV treatment outcomes between patients who experienced a seroconversion before and after the first description of the epidemic in 2006.

METHODS

Study population
- The Swiss HIV Cohort Study (SHCS), a nationwide and representative cohort, offers an ideal platform to study nationwide trends in acute HCV epidemiology and management.
- All patients from the SHCS with a documented HCV-seroconversion were included.
- Patients with insufficient data and those who were lost to follow-up during the first 6 months after seroconversion were excluded.

Data collection
- Detailed information on HCV diagnosis, treatment and outcomes, as well as reasons for not starting HCV treatment was retrieved from the SHCS database and chart review using standardized case report forms.

Analyses
- Natural history, treatment uptake and outcomes were compared between risk groups and time periods before and after 2006 using Fisher’s exact test.
- HCV reinfections were defined as a genotype switch or a newly detectable HCV viral load after treatment-induced SVR or spontaneous clearance.

RESULTS I: PATIENT CHARACTERISTICS

- Of 203 HCV seroconversions, 10 were excluded due to insufficient information. The demographic and clinical characteristics of the patients included are shown in Table 1.
- The proportion of MSM among patients with incident HCV infections increased from 23% before 2006 to 75% after 2006 (p<0.001) (Figure 3).

RESULTS II: NATURAL COURSE OF HCV INFECTION AND TREATMENT UPTAKE

- A spontaneous clearance was observed in 48 cases (32% of those not treated during acute infection). Five of these experienced a reinfection (Figure 2).
- Twenty-three (12%) patients died during follow-up.
- Liver stiffness measurements were available for 55 (28%) individuals. The median liver stiffness was 6.9 kPa (IQR 4.7-7.5) after a median follow-up time of 6.9 years (2.7-10.3), and 7 patients in infection. Five of these experienced a reinfection (Figure 2).

HCV treatment uptake increased from 33% before 2006 to 75% after 2006 (p<0.001). Among those treated, only 19% started HCV therapy compared to patients from the SHCS.
- Among those treated, only 19% started HCV therapy compared to patients from the SHCS.
- Five patients (all MSM) experienced a reinfection after an SVR to HCV treatment.

RESULTS III: TREATMENT OUTCOMES

- Of 203 HCV seroconversions, 10 were excluded due to insufficient information. The demographic and clinical characteristics of the patients included are shown in Table 1.
- The proportion of MSM among patients with incident HCV infections increased from 23% before 2006 to 75% after 2006 (p<0.001). MSM were more likely to be treated during acute infection.
- If treated early, SVR rates were high, underscoring the need of increased efforts towards early diagnosis and treatment.
- The improvement of HCV treatment uptake could have an impact on transmission in HIV-infected patients.

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