HCV REINFECTION AFTER SUCCESSFUL DAA TREATMENT – A GECCO ANALYSIS

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Background

Reinfection with the hepatitis C virus has been described in patients with ongoing risk behaviour for HCV acquisition after spontaneous clearance or successful treatment. The highest incidence has been observed in active intravenous drug users (IDUs) and in HIV-positive men who have sex with men (MSM). Among the latter, users of intravenous and non-intravenous drugs (mainly methamphetamine) for sexual enhancement („Chemsex“) have been identified as a main risk group for HCV acquisition. In HIV infected MSM in Western Europe in the interferon era, 25% have been found to be reinfected with HCV three years after HCV cure. The incidence of HCV reinfection after treatment with direct-acting antiviral agents (DAA) is not known. Here, we analysed the reinfection rate in the GECCO cohort.

Methods

The German hepatitis C cohort (GECCO) is a real-world cohort on treatment with all HCV DAAs from nine care centers from Germany since February 2014. Clinical and demographic data is collected from HCV mono- and HIV-HCV coinfected patients. Patients without virological response or that were lost to follow-up (LTFU) were excluded from this analysis. Reinfection was defined as an undetectable HCV RNA in a patient who had an undetectable HCV RNA at least 12 weeks after the end of treatment (SVR12), or with an HCV genotype switch before that timepoint.

Results

Patient demographics of 1,483 GECCO patients that reached at least the timepoint SVR4 are listed in table 1. Overall, 66 (3.6%) patients within the GECCO cohort had a virological failure. Of the remaining 1,417 patients, 24 (1.7%) were identified with an HCV reinfection. Reinfection occurred within a median of 41 weeks (IQR 25-67) after end-of-treatment response. The characteristics of the patients with an HCV reinfection are shown in table 2.

The four HCV mono-reinfections appeared in intravenous drug users (IDU), 5/5 IVDU with reinfection were on opiate substitution treatment. In coinfected patients, 19 out of 20 patients (95%) were men who have sex with men (MSM). Five out of the 19 (26%) MSM declared to have occasional intravenous recreational drug use. Overall, the reinfection rate was 11% (19/166) in MSM after a median of 45 weeks, and 1% (5/454) in IVDU after a median of 40 weeks.

Conclusions

Within the multicentric GECCO cohort, reinfection remains a rare event. However, in subgroups with ongoing risk behaviour the HCV reinfection rate remains high, with MSM being more affected than IDUs. In HIV-infected MSM, similar reinfection rates as in the pre-DAA era are observed, again highlighting this subgroup as a target population for close monitoring and specific behavioural interventions.