Response to anti-HCV treatment in HIV-infected patients chronically infected with Hepatitis C.

The NVHB-SHM Hepatitis working group:

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Abstract

We aimed to evaluate the response to anti-HCV treatment in HIV-infected patients with a chronic hepatitis C (HCV) infection.

461 HIV/HCV chronically infected patients received anti-HCV treatment. Endpoint of the study is a sustained virologic response (SVR), defined as undetectable HCV RNA levels 24 weeks after treatment was ended.

40% of the patients achieved a SVR. Although non statistically significant, SVR rates were higher in patients infected with HCV genotypes 2&3 compared to those infected with 1&4.

A substantial number of patients remain untreated. Newly introduced HCV protease inhibitors may provide higher SVR.

Monitoring of virologic response and long term side effects will remain important in the future.

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Background

- **Hepatitis C infection (HCV) is common in HIV-infected patients.**
- **When untreated HCV-infection will progress to chronic liver disease.**
- **A combination of pegylated interferon-alfa (peg-IFN) and ribavirine (RBV) is the first choice of therapy for HCV.**

Aim

To evaluate the response to anti-HCV treatment in HIV-infected patients chronically infected with HCV.

Methods

- **461 HIV-infected patients with a chronic HCV-infection received anti-HCV treatment.**
- **Patients were defined as chronically infected with HCV when anti-HCV treatment was started at least 12 months after the first HCV RNA positive test result.**
- **Patients with an acute HCV infection were excluded.**
- **Patients were treated between 1998 and 2012.**
- **The efficacy endpoint was a sustained virologic response (SVR)**
- **SVR is defined as a negative or undetectable plasma HCV RNA (<50 IU/ml) 24 weeks after the end of treatment.**

Table 1 . Demographic and clinical characteristics

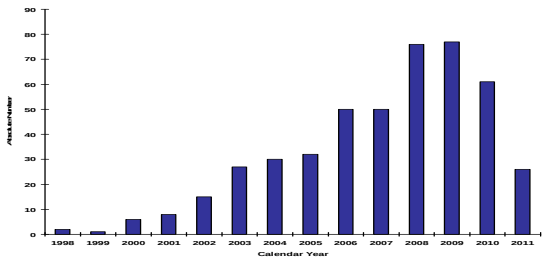
	Number (n,%))
Total number of patients	461
Age (median, interguartile range)	42 ((37-48)
Route of HIV transmission:	
Homosexual contact	274 (59%)
Heterosexual contact	44 (10%)
Injecting drug use	87 (19%)
other	56 (12%)
Region of origin:	
Netherlands	319 (69%)
European (excl NL)	65 (14%)
Other	77 (17%)
HCV genotype:	
1	283 (61%)
2	23 (5%)
3	63 (14%)
4	66 (14%)
unknown	26 (6%)
Duration of HCV treatment in weeks (median, IQR)	
Overall	30 (21-48)
Genotype 1&4	35 (21-48)
Genotype 2&3	25 (22-37)

Results

Table 1 **represents the demographic and clinical characteristics of patients with a chronic HCV infection who started anti-HCV treatment between 1998 and 2012.**

The number of patients with a chronic HCV infection starting anti-HCV treatment increased over time (*Figure 1*).

Figure 1: Number of patients with a chronic HCV infection, starting anit-HCV treatment over time.



Results continued

78 (16%) patients ended anti-HCV treatment within 14 weeks, 32 (7%) of these patients stopped in the first 4 weeks, which did not differ between genotypes.

For those with a known stop reason (n=68, most common stop reasons were toxicity (n=32) and virologic non-response (n=15), other reasons were decision of the patient, interaction with co-medication, precaution, social or psychological reasons.

During treatment, 36% of the patients had an undetectable HCV RNA at week 4, 62% at week 12, 40% reached a SVR (Figure 2).

Although not statistically significant, SVR varied between genotypes (Figure 3).

Figure 2: Response to anti-HCV treatment over time.

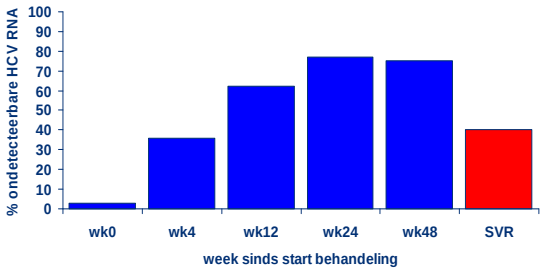
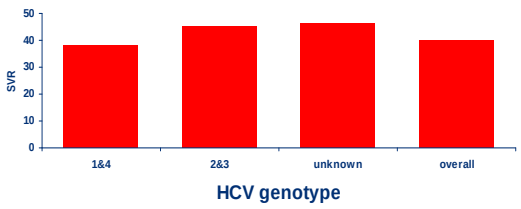


Figure 3: SVR stratified by HCV genotype.



Conclusion

- **HCV is cleared in less than half of the patients with a chronic HCV infection treated with a combination of peg-IFN and RBV.**
- **A substantial number of patients remain unsuccessfully treated.**
- **Additional anti-HCV drugs are now being developed. Newly introduced HCV protease inhibitors may provide higher SVR rates.**
- **Monitoring the virologic response, as well as the long term side effects and toxicity of these new anti-HCV drugs and the interaction with antiviral agents will remain a challenge for the future.**