

Background

Left untreated, 5-25% of individuals with chronic hepatitis C virus (HCV) infection will develop cirrhosis, liver decompensation, and hepatocellular carcinoma over time. People who inject drugs (PWID) may be at risk of more rapid progression because of the hepatotoxic nature of recreational drugs. All-oral therapies have made HCV easily curable, potentially mitigating risk for progressive liver disease. Transient elastography is a non-invasive means of measuring hepatic fibrosis, allowing us to evaluate the impact of successful treatment of HCV infection in a population with exposure to hepatotoxic agents.

Methods

We performed a retrospective chart review of all individuals with current/former substance use, who have successfully been treated for HCV at our centre. Using FibroScan (FS), we analyzed fibrosis levels at baseline (pre-treatment) in comparison with results following successful HCV therapy.

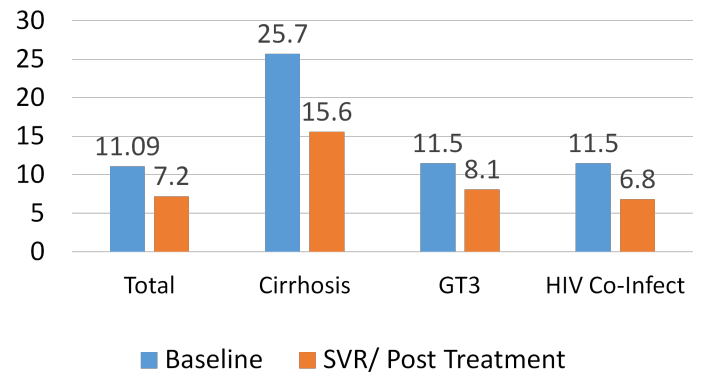
Results

Between March 2014 and April 2018, we have identified 81 PWID who have been successfully treated for their HCV and have both pre- and post-treatment FS scores available for analysis. Participant characteristics include: mean age 57, 17% female, 21% encountered through community outreach programs, 16% HIV co-infected, 37% on OST, 66% GT1a, 17% GT3, 68%/59%/20% opioid/cocaine/amphetamine use, respectively. Overall mean baseline FS: 11.09 kPa ± 9.3, SVR12 FS: 7.2 kPa ± 6.2. ($p < 0.05$). Patients with baseline cirrhosis ($n = 13$, FS >12.5 kPa), mean baseline FS: 25.7 kPa ± 14.5, mean SVR12 FS: 15.6 kPa ± 11.05. HIV co-infected patients ($n = 13$), mean baseline FS: 11.5 kPa ± 6.6, mean SVR12 FS: 6.8 kPa ± 3.4. Patients with GT3 ($n = 12$), mean baseline FS: 11.5 ± 7.5, mean SVR12 FS: 8.1 kPa ± 6.5.

Table 1. Patient Demographics

Demographics	Characteristics (n=81)
Mean age	57
Females (n, %)	14 (17)
Community Outreach (n, %)	17 (21)
HIV Co-Infect (n, %)	13 (16)
Opiate Substitution Therapy (n, %)	30 (37)
GT 1a	54 (66)
GT 3	14 (17)
Opioid Use	55 (68)
Cocaine Use	48 (59)
Amphetamine Use	16 (20)

Table 2. Pre- and Post- Treatment FibroScan Scores (kPa)



Conclusion

FibroScan scores were significantly impacted by achievement of HCV cure. Notable reductions were seen in individuals with baseline cirrhosis, HIV co-infection, and genotype 3. This documented improvement in liver scarring provides additional rationale for treating HCV infection among PWID.

Acknowledgements

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