HIV NASH CRN

HIV NASH Clinical Research Network (HIV NASH CRN) is sponsored by the National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK).

Prevalence and Risk Factors for Steatotic Liver Disease in PWH with Resolved HCV

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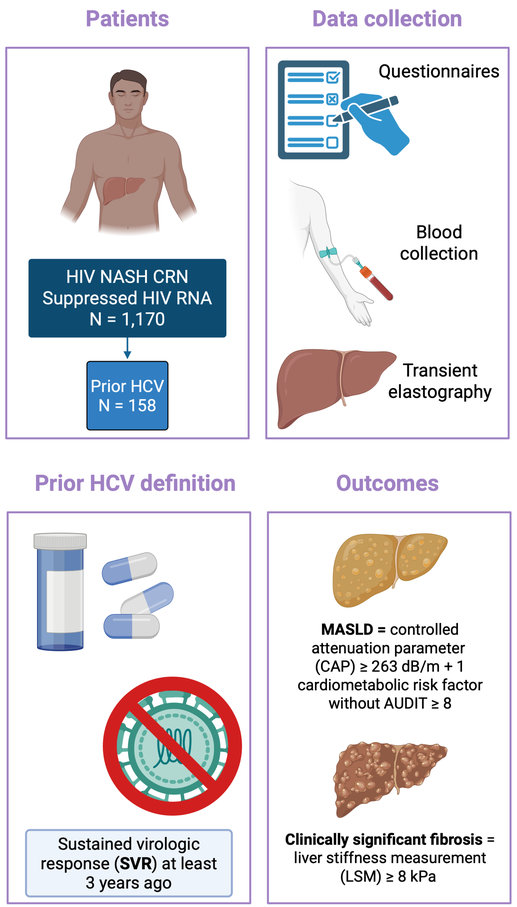
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BACKGROUND

- Steatotic liver disease (SLD) in people with HIV (PWH) who have had hepatitis C (HCV) cured is associated with adverse liver-related outcomes:
  - Clinically significant fibrosis (CSF, ≥F2), advanced fibrosis (F3-4), and cirrhosis (F4)
  - Hepatocellular carcinoma (HCC)
- Whether PWH need liver-focused surveillance after HCV cure is not known outside of those with advanced fibrosis, in whom ongoing HCC surveillance is recommended.
- **Aim: describe prevalence and severity of SLD in PWH who had prior HCV (PWH-HCV).**

METHODS



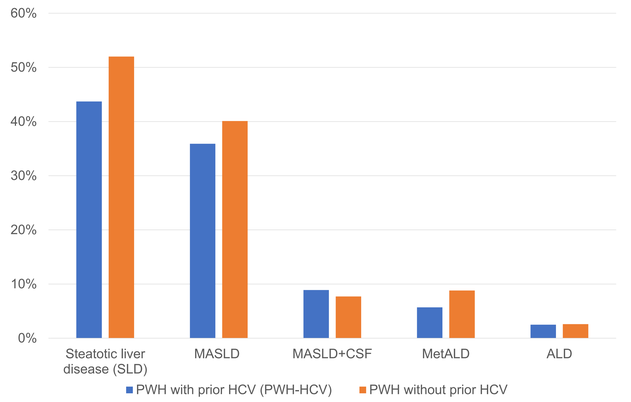
MASLD is equally prevalent in PWH with **cured HCV** compared to those without → need for screening and prevention efforts

RESULTS

Table 1: Participant demographics

	Prior HCV (N=158)	No prior HCV (N=1012)	Overall (N=1170)	p-value
Age (years), mean (SD)	60.8 (8.2)	52.2 (12.3)	53.4 (12.2)	<0.001
Male sex	114 (73%)	752 (74%)	866 (74%)	0.65
Hispanic ethnicity	15 (9%)	225 (22%)	240 (21%)	<0.001
Race				<0.001
White	32 (21%)	393 (44%)	425 (40%)	
Black	117 (77%)	472 (52%)	589 (56%)	
Other	2 (1%)	35 (4%)	37 (4%)	
ART Regimen				
NRTI	137 (87%)	891 (88%)	1028 (88%)	0.63
NNRTI	27 (17%)	202 (20%)	229 (20%)	0.40
INSTI	134 (85%)	879 (87%)	1013 (87%)	0.48
Protease inhibitor	23 (15%)	111 (11%)	134 (11%)	0.19
Diabetes	57 (36%)	324 (32%)	381 (33%)	0.31
Hyperlipidemia	109 (69%)	542 (54%)	651 (56%)	<0.001
BMI (kg/m^2), mean (SD)	28.6 (6.0)	30.5 (6.9)	30.2 (6.8)	0.001
Waist circumference (cm), mean (SD)	97.0 (15.8)	101.2 (16.1)	100.6 (16.1)	0.003
Current alcohol use				<0.001
Abstinent (AUDIT 0)	95 (61%)	441 (44%)	536 (46%)	
Low risk (AUDIT 1-7)	48 (31%)	483 (48%)	531 (45%)	
Hazardous/harmful use (AUDIT 8-14)	10 (6%)	64 (6%)	74 (6%)	
Dependent use (AUDIT≥15)	4 (3%)	23 (2%)	27 (2%)	
Health Insurance				<0.001
Uninsured/self pay	6 (4%)	34 (3%)	40 (3%)	
Commercial only	19 (12%)	299 (30%)	318 (27%)	
Medicare/Medicaid only	94 (59%)	401 (40%)	495 (42%)	
Other/combination	39 (25%)	278 (27%)	317 (27%)	
Clinically significant fibrosis (CSF)	32 (20.3%)	135 (13.3%)	167 (14.3%)	0.02

Figure 1: Steatotic liver disease phenotypes (none statistically significantly different)



SLD=steatotic liver disease; MASLD=metabolic dysfunction-associated steatotic liver disease; CSF=clinically significant fibrosis; MetALD=metabolic dysfunction-associated and alcohol-associated liver disease; ALD=alcohol-associated liver disease

Table 2: Multivariable model for MASLD among PWH-HCV

	Unadjusted		Adjusted	
	Odds ratio (95% CI) for MASLD	p-value	Odds ratio (95% CI) for MASLD	p-value
Age, years	0.98 (0.94, 1.02)	0.23	1.03 (0.97, 1.09)	0.27
Male sex	1.34 (0.63, 2.86)	0.44	1.71 (0.62, 4.69)	0.30
Hispanic ethnicity	3.54 (1.01, 12.38)	0.05	0.52 (0.08, 3.24)	0.49
Race, white vs. black	2.20 (0.96, 5.05)	0.06	3.84 (1.22, 12.09)	0.02
BMI, kg/m^2	1.23 (1.13, 1.33)	<0.001	1.24 (1.13, 1.37)	<0.001
Type 2 diabetes	3.42 (1.62, 7.20)	0.001	2.22 (0.87, 5.70)	0.10
Hyperlipidemia	1.11 (0.54, 2.28)	0.78	--	--
Statin use	0.70 (0.35, 1.37)	0.29	--	--

N=138; 1 intersex participant excluded, and 7 participants missing race excluded; 1 participant identifying as white and American Indian categorized as white, and 1 participant identifying as white and black categorized as black.

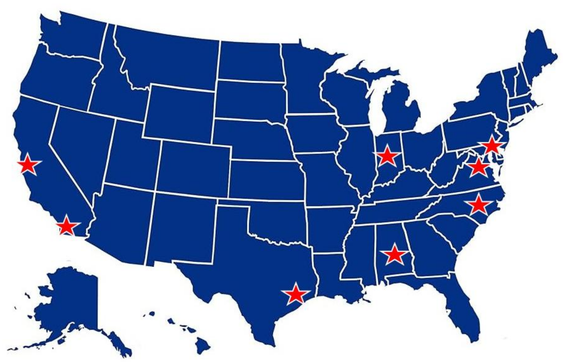
CONCLUSIONS

- **SLD was common among PWH**, pointing to the need for standardized screening recommendations
- PWH-HCV had a higher prevalence of CSF, likely reflecting HCV-related injury, but a similar prevalence of MASLD-CSF.
- PWH-HCV had a **distinct metabolic profile** characterized by lower BMI and waist circumference but higher rates of hyperlipidemia.
- Metabolic risk factors play an important role in SLD development among PWH after HCV resolution.

ADDITIONAL KEY INFORMATION

- Study contact information:
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Figure 2: HIV NASH CRN sites



PLAIN LANGUAGE SUMMARY

The presence of abnormal fat deposition in the liver is common after hepatitis C infection is cured in people with HIV.