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Abstract # PE16/14

The Burden of HCV-Related Cirrhosis Among HIV/HCV Coinfected Individuals in Spain in the DAA Era: What will the battlefield look like once the battle is over?

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Background

- The benefits of eradicating HCV among coinfected individuals regarding reduced liver-related and non-liver- related morbidity and mortality are well-known.[1]
- However, in patients with cirrhosis in whom HCV has been eradicated, there persists a residual risk for liver-related events, especially hepatocellular carcinoma.[2]
- Surveillance for hepatocellular carcinoma with liver imaging should be pursued twice annually for an indefinite duration in all patients with stage 3 fibrosis or liver cirrhosis post-SVR. [3]

1. Berenguer J, et al. Hepatology 2017; 66(2): 344-56.
2. van der Meer AJ, et al. J Hepatol 2017; 66(3): 485-93.
3. EASL. J Hepatol 2017; 66(1): 153-194

Aims

- To assess the prevalence of HIV/HCV-coinfection in Spain in 2016
- To define the clinical characteristics of HIV/HCV-coinfected patients with particular attention to assess the burden of HCV-cirrhosis among those who achieved SVR after anti-HCV therapy

Methods

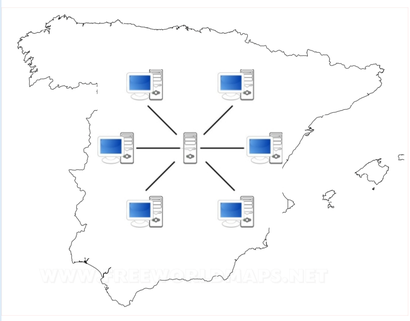
Design	• Nationwide cross-sectional study
Study period	• October-November 2016
Reference population	• All HIV+ patients in active follow-up in the participating centers*
Sample size estimation	• Confidence level 95% • Design effect 1.0 • Accuracy of 2.0%
Patient selection	• Number of patients from each hospital determined by proportional allocation • Patients were selected using simple random sampling
Data recording	• Online CRF

*Active follow-up = at least 1 visit in the previous 12 months

Definition of liver cirrhosis

- The presence of liver cirrhosis was investigated in all patients, as was the method of diagnosis, namely, liver biopsy, transient elastography (liver stiffness > 12.5 kPa), or clinical/biological findings.
- Patients with prior or current episodes of ascites, hepatic encephalopathy, or variceal bleeding were considered to have decompensated liver disease.
- In patients with cirrhosis, current Child-Pugh and model for end-stage liver disease (MELD) scores were recorded.
- We also recorded whether patients had been diagnosed with hepatocellular carcinoma and whether they had undergone liver transplantation.

Centers, Population, Sample Size



Centers
- 43 centers

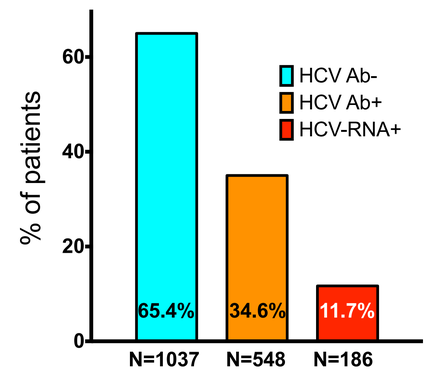
Reference population
- 38,904 HIV+ patients

Sample Size
- 1,588 HIV+ patients

Data recording Online CRF

Prevalence of HCV Ab+ and HCV-RNA+

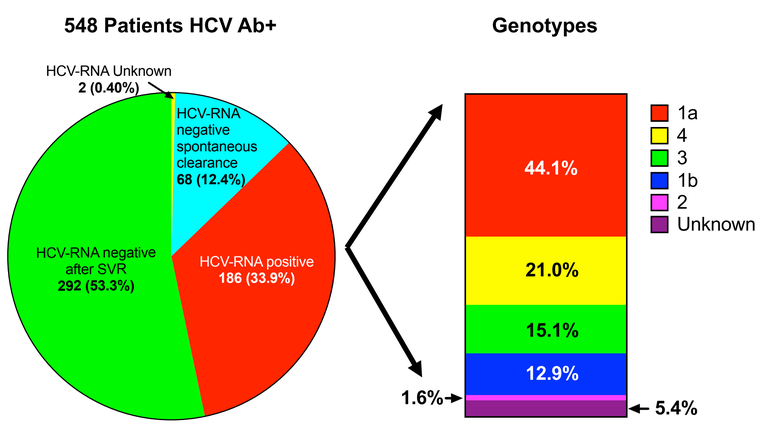
HCV serology known in 1,585 of 1,588 patients (99.8%)



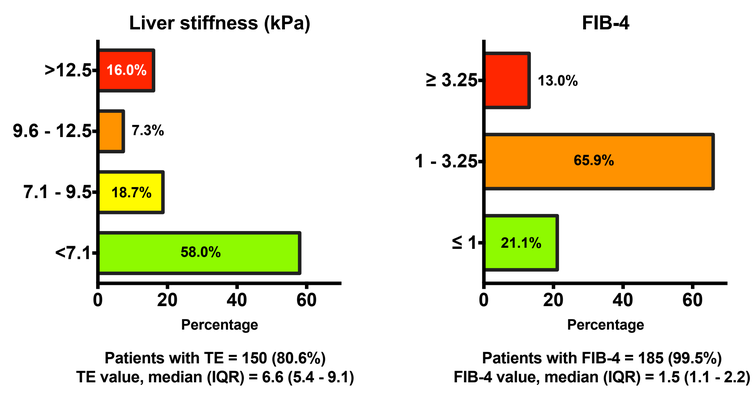
Characteristics of patients according to HCV serology

	HCV-Ab+ (N = 548)	HCV-Ab- (N = 1037)	*P*
Male sex, n (%)	415 (75.7)	805 (77.6)	.39
Age years, mean (SD)[2]	51 (7)	47 (12)	<.001
IDU as HIV transmission category, n (%)	417 (76.1)	53 (5.1)	<.001
CDC clinical category C, n (%)	166 (30.3)	236 (22.8)	.001
cART, n (%)	538 (98.2)	994 (95.8)	.014
Type of cART regimen, n (%)			
2 NRTI + 1 NNRTI	136 (25.2)	376 (37.8)	
2 NRTI + 1 PI	74 (13.7)	118 (11.9)	
2 NRTI + 1 integrase inhibitor	183 (33.9)	312 (31.4)	<.001
PI-based monotherapy	36 (6.7)	49 (4.9)	
PI-based bitherapy	53 (9.8)	56 (5.6)	
Other	57 (10.6)	83 (8.3)	
HIV-RNA copies/ml, n (%), patients on cART			
<50	488 (90.7)	924 (93.0)	
50-200	23 (4.3)	30 (3.0)	.28
>200	27 (5.0)	40 (4.0)	
CD4+ – T cells/µL, median (IQR), patients on cART	659 (431-886)	678 (495-910)	.039

HCV-RNA results & HCV genotypes

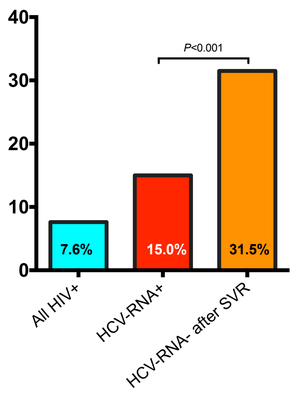


Fibrosis staging in HCV-RNA+ patients



Cirrhosis among HIV-infected patients

- Presence of cirrhosis
  - 120/1588 (7.6%) patients overall
  - 28/186 (15.0%) patients with active HCV infection
  - 92/292 (31.5%) patients who cleared HCV after SVR
- Assuming 130,000-160,000 people living with HIV in Spain
  - There are between 9,120 and 12,160 HIV-infected individuals with HCV-related cirrhosis



Prevalence and characteristics of cirrhosis among HCV-RNA+ patients and HCV-RNA- patients after SVR

	HCV-RNA+	HCV-RNA- after SVR	*P*
	N = 186	N = 292	
Liver cirrhosis, n (%)	28 (15.0)	92 (31.5)	<.001
Decompensated cirrhosis, n (%)	4 (14.3)	8 (8.7)	.39
Hepatocellular carcinoma, n (%)	1 (3.6)	1 (1.1)	.37
Serum albumin, median (IQR)	4.0 (3.5 – 4.6)	4.4 (4.0 – 4.7)	.046
Patients with FIB-4, n (%)	28 (100.0)	92 (100.0)	
FIB-4 value - Median (IQR)	2.8 (1.6 – 5.1)	2.0 (1.4 – 3.2)	.047
Patients with TE, n (%)	27 (96.4)	84 (91.3)	
Last TE value – kPa, median (IQR)	10.9 (3.2 – 25.4)	14.7 (7.7 – 34.3)	.29

Conclusions

1. With universal access to DAA-based therapy and continued efforts in prevention and screening, it will be possible to eliminate active HCV among HIV-infected individuals in Spain in the short term.
2. The burden of HCV-related cirrhosis, however, will continue to be significant among HIV-infected individuals.

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