

# **Liver Fibrosis in Patients With Chronic Hepatitis C and Persistently Normal Transaminases – Influence of HIV Infection in the HAART ERA**

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# Background

- Liver fibrosis progress slowly in patients with chronic hepatitis C and persistently normal ALT (PNALT) compared to subjects with elevated transaminases
- Differences in liver fibrosis according to HIV status in this population have not been examined

# Methods

- All patients with serum HCV RNA and PNALT who underwent liver fibrosis assessment using elastometry since 2004 at 3 different European hospitals were evaluated
- Patients previously treated with interferon were excluded
- PNALT was defined as AST/ALT below 30 IU/mL in at least 3 determinations within the last 12 months
- Fibrosis stage was defined as mild (METAVIR F0–F1) if stiffness  $\leq 7.1$  kPa; moderate (F2) if 7.2–9.4 kPa; severe (F3) if 9.5–14, and cirrhosis (F4) if  $>14$  kPa

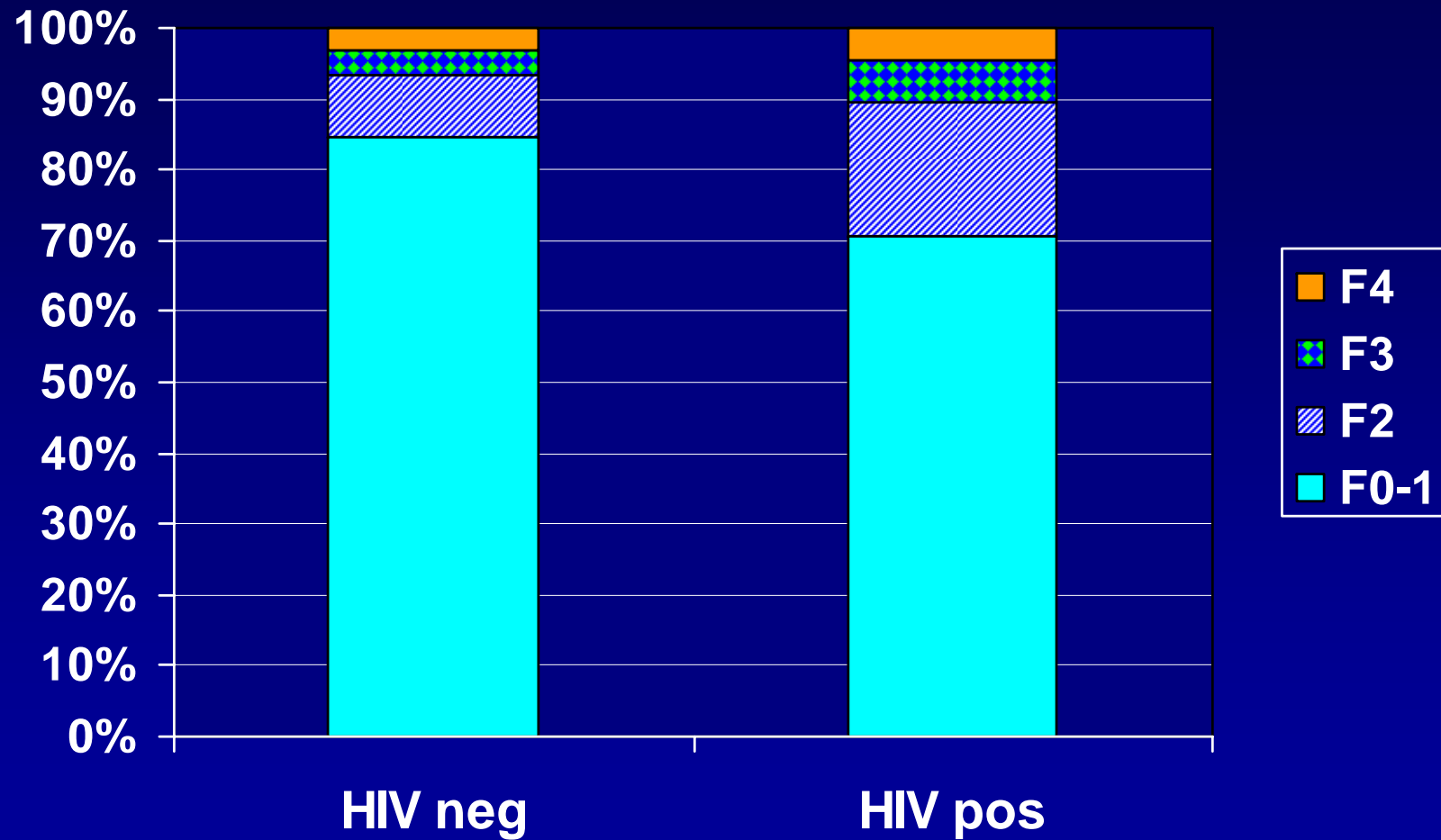
# Main Baseline Characteristics

	HCV patients (n=449)	HCV/HIV patients (n=133)	<i>P</i>
Age	51.8 (13.9)	43.5 (6.1)	<0.001
Male gender	168 (37.5)	83 (62.9)	<0.001
Alcohol consumption >50 g/day	49 (17.9)	23 (27.7)	0.05
Serum HBsAg+	2 (0.001)	0 (0)	0.5
Serum HCV RNA (log IU/mL)	6.0 (0.7)	5.9 (0.8)	0.37
HCV genotype			
1	197 (55)	63 (55.3)	ns
2	84 (23.5)	4 (3.5)	<0.001
3	22 (6.1)	12 (10.5)	ns
4	49 (13.7)	35 (30.7)	0.02
5 & 6	6 (1.7)	0	Ns
Plasma HIV RNA <50 copies/mL		76 (59.4)	
Plasma HIV RNA (log cop/mL)		2.4 (1.3)	
CD4 count (cells/μL)		528 (278)	
Antiretroviral treatment		93 (78.8)	

# Predictors of Severe Liver Fibrosis or Cirrhosis

	Univariate analysis			Multivariate analysis		
	OR	95% CI	P	OR	95% CI	P
Older age	<b>1.02</b>	<b>(1–1.05)</b>	<b>&lt;0.001</b>	<b>1.04</b>	<b>(1.02–1.07)</b>	<b>&lt;0.001</b>
Male gender	1.11	(0.61–2.01)	0.71	---		
Log HCV RNA	1.23	(0.71–2.16)	0.44	---		
Genotype 1	0.97	(0.49–1.9)	0.9	---		
Genotype 2	1.22	0.53–2.7)	0.63	---		
Genotype 3	1.16	(0.33–4)	0.8	---		
Genotype 4	0.85	(0.34–2.12)	0.74	---		
Alcohol abuse	1.22	(0.47–3.17)	0.67	---		
ALT >30 IU/mL	1.23	(0.68–2.23)	0.48	---		
HIV infection	1.64	(0.84–3.19)	0.14	<b>2.66</b>	<b>(1.21–5.85)</b>	<b>&lt;0.001</b>

# Distribution of Liver Fibrosis Stages



# Summary Results

- A total of 449 HIV-negative and 133 HIV-positive patients were evaluated
- HIV-negative patients were older (mean age 51.8 vs 43.5 years) and more frequently female (63% vs 37%) than HIV counterparts
- Mean serum HCV RNA was similar in both groups (5.9 vs 5.8 log IU/mL)
- Overall, 78.8% of HIV patients were on HAART and their mean CD4 count was 525 (+278) cells/ $\mu$ L
- In HIV-negative, liver fibrosis was mild in 84.6%; moderate in 8.7%, severe in 3.3% and cirrhosis was found in 3.3%
- In HIV patients, these figures were 70.7%, 18.8%, 6%, and 4.5%, respectively
- In the multivariate logistic regression analysis, older age (OR: 1.04; 95% CI: 1.02–1.07;  $P < 0.001$ ) and being HIV-positive (OR: 2.6; 95% CI: 1.21–5.85;  $P < 0.01$ ) were associated with severe liver fibrosis or cirrhosis (F3–F4)

# Conclusions

- Severe liver fibrosis and cirrhosis are seen in 6.6% of HCV monoinfected and in 10.5% of HCV-HIV coinfecting patients with PNALT
- Some degree of liver fibrosis, which justifies treatment, is seen in 15% of HCV monoinfected patients but doubles to nearly 30% of HIV-HCV coinfecting patients with PNALT