

## **Prevalence and predictors of occult cirrhosis diagnosed by transient elastography in 1,658 HIV infected patients**

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**Background:** People living with HIV are at high risk for liver cirrhosis and related death. Diagnosis of compensated cirrhosis at preclinical stage is challenging due to lack of any physical, laboratory and imaging findings. We evaluated prevalence and predictors of preclinical compensated cirrhosis, defined as occult cirrhosis (OC), diagnosed by transient elastography (TE).

**Methods:** Unselected HIV infected patients underwent a TE examination as a part of a routine screening program for liver disease. Patients were classified as: 1) OC (TE  $\geq 13$ kPa and absence of any clinical sign of cirrhosis, including no thrombocytopenia, nor signs of advanced liver disease on ultrasound); 2) clinically evident compensated cirrhosis (TE  $\geq 13$ kPa with any of the previous signs); 3) non-cirrhotic patients (TE  $< 13$ kPa). Predictors of OC were investigated through multivariable logistic regression analysis.

**Results:** 1,658 HIV-infected patients (mean age  $50.3 \pm 10.6$  years, 77.3% men, mean CD4  $593 \pm 266$ , 90% on antiretrovirals) were included. Coinfection with HCV was found in

35% of cases. Overall, liver cirrhosis was present in 11.1% of cases. OC represented 5.1% of the whole patient population and 41.2% of cirrhotic patients. In multivariable analysis, OC was independently associated with higher BMI, while black ethnicity and female gender were found to be protective.

**Conclusions:** OC is a frequent clinical entity in HIV infected patients. Its independence from HCV coinfection suggest the contribution of emerging etiologies of liver disease, such as fatty liver. Screening of HIV infected patients by TE may help prompt initiation of appropriate surveillance and interventions for an otherwise unrecognized condition.

<b>Variable</b>	<b>aOR (95% CI)</b>	<b>p</b>
<b>Female sex</b>	0.23 (0.09-0.59)	0.002
<b>Black non-Hispanic ethnicity</b>	0.12 (0.026-0.57)	0.008
<b>Duration HIV infection (per year)</b>	1.05 (0.99-1.11)	0.09
<b>BMI (per Kg/m<sup>2</sup>)</b>	1.02 (1.00-1.04)	0.019
<b>HCV</b>	1.34 (0.56-3.20)	0.52