

## 717 Predictors of Liver-Related Events Following DAA HCV Cure in PWH With Advanced Fibrosis/Cirrhosis

Juan Berenguer<sup>1</sup>, Teresa Aldámiz-Echevarría<sup>1</sup>, Víctor Hontañón<sup>2</sup>, Chiara Fanciulli<sup>1</sup>, Carmen Quereda<sup>3</sup>, Carmen Busca<sup>2</sup>, Lourdes Domínguez<sup>4</sup>, Cristina Hernández<sup>5</sup>, Jorge Vergas<sup>6</sup>, Lucio J. García-Fraile<sup>7</sup>, Marta De Miguel<sup>8</sup>, Cristina Díez<sup>1</sup>, José M. Bellón<sup>1</sup>, Juan González-García<sup>2</sup>, for the GeSIDA 10318-MARATHON Study Team

*1Hospital General Universitario Gregorio Marañón, Madrid, Spain, 2La Paz University Hospital, Madrid, Spain, 3Hospital Ramón y Cajal, Madrid, Spain, 4Hospital Universitario 12 de Octubre, Madrid, Spain, 5Hospital Universitario Príncipe de Asturias, Madrid, Spain, 6Hospital Universitario Clínico San Carlos, Madrid, Spain, 7Hospital Universitario de La Princesa, Madrid, Spain, 8Fundación SEIMC-GeSIDA, Madrid, Spain*

**Background:** We assessed prognostic factors of liver-related events (LRE) among HCV-coinfected PWH with advanced fibrosis (AF) or compensated cirrhosis (CC) with SVR following all-oral direct antiviral therapy (DAA-Rx).

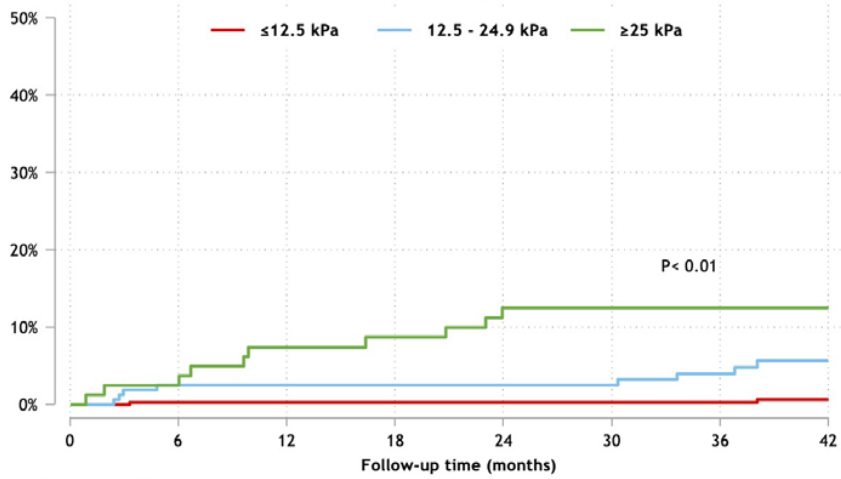
**Methods:** We leveraged 3 prospective observational studies in Spain to select coinfecting PWH with AF (biopsy confirmed F3 or liver stiffness [LS] value  $> 9.9$  and  $\leq 12.5$  kPa) or CC (biopsy confirmed or LS  $> 12.5$  kPa) with SVR following DAA-Rx from 2014 to 2017. The primary outcome was an LRE: decompensation (DEC) or hepatocellular carcinoma (HCC), whichever occurred first after the finalization of DAA therapy. Independent variables (based on the underlying conceptual framework) included liver disease category, age, sex, smoking, alcohol abuse, methadone use, prior clinical AIDS, CD4+ T-cell count, albumin concentration, metabolic syndrome, TyG and HSI indexes, and values of LS and FIB4 at baseline and 1 year after finalization of DAA therapy (1-yr). Multivariable competing-risk regression analyses with multiple imputations by chained equations for missing data were used to assess the effect of the independent variables on the outcomes. We used ROC curves to determine the diagnostic capacity of LS to predict LRE with the selection of the optimum cutoff value according to Youden's J statistic.

**Results:** 1,145 PWH (384 AF and 761 CC) were included. After a median follow-up of 41 months, 60 patients died, 24 had DEC, and 21 developed HCC. The risk of LRE was higher among those with CC than those with AF, but no statistically significant differences in overall and cause-specific mortality were found between groups. Albumin concentration (aSHR [95% CI] 0.55 [0.35 – 0.87]) per g/L increase) and 1-yr LS values (aSHR [95% CI] 1.04 [1.01 – 1.09] per kPa increase) were the only factors independently associated with the risk of LRE. The best cutoff value of 1-yr LS to predict LRE was 12.5 kPa (NPV: 99.5% [95% CI: 98.2 – 99.9]). For each 5 kPa increase above this cutoff, the HR of LRE was 1.34 (95% CI, 1.24 – 1.45). When we took the 12.5 kPa cutoff as the reference, the HR of LRE in patients with LS values of 12.5-24.9 kPa and  $\geq 25$  kPa were 11.45 (95% CI, 2.48 – 52.82) and 26.49 (95% CI, 5.79 – 121.22) respectively (Figure).

**Conclusion:** Albumin concentration and 1-yr LS values after the finalization of a successful DAA therapy were identified as independent predictors of LRE among HCV-coinfected PWH with AF or CC. The best cutoff value of 1-yr LS to predict LRE was 12.5 kPa.

### Kaplan-Meier failure estimate

Liver-Related event



Number at risk

Liver stiffness	≤12.5	410	408	402	397	381	350	303	154
12.5 - 24.9	160	156	154	151	146	138	122	122	71
≥25	81	79	74	72	68	63	55	55	31

**Figure.** Cumulative incidence plots of liver-related events for different liver-stiffness cutoffs determined 1 year after the finalization of DAA therapy in HCV-coinfected PWH with advanced fibrosis or compensated cirrhosis