

P-61 CLINICAL APPLICATION OF NAFLD FIBROSIS SCORE AND HEPAMET FIBROSIS SCORE IN CORONARY ARTERY DISEASE AND MASLD: A CROSS-SECTIONAL STUDY IN WESTERN MEXICAN POPULATION

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Conflict of interest: No

Introduction and Objectives: Coronary artery disease (CAD) is a leading cause of morbidity and mortality worldwide. Reliable knowledge of the prevalence of occult CAD, particularly anatomically confirmed CAD is limited and cardiovascular risk (CVR) models only predict the risk of an acute coronary event within a set period. It has been described that a FIB-4 score is associated with a higher CVR. **Objective:** to determine the utility of noninvasive markers of liver fibrosis in CAD.

Patients / Materials and Methods: A cross-sectional study in western Mexican population was conducted in two tertiary centers in central and western Mexico from March 2019 to April 2023. Patients with MASLD according to the latest recommendations (hepatic steatosis demonstrated by imaging study and at least one cardiometabolic criteria) who required percutaneous coronary angiography were included, demographic data and coronary angiographic were recorded. Noninvasive fibrosis indexes were calculated. Continuous variables were subjected to a distribution analysis and equality of variances to subsequently perform a mean comparison analysis with U-Mann-Whitney test between patients with monovascular, bivascular and trivascular involvement. A correlation analysis was also performed between the invasive markers and the Syntax index.

Results and Discussion: A total of 168 patients were included with a mean age of 66 ± 12 years with a predominance of male sex with 75.6% (n= 127). Angiographic findings included 37.5%, monovascular, 32.7%, bivascular and 29.8% trivascular involvement. Comparison of means of noninvasive markers of fibrosis demonstrated a significant difference in HFS between patients with monovascular (0.17 ± 0.18), bivascular (0.27 ± 0.18) and trivascular (0.30 ± 0.25) coronary artery disease, $p \leq 0.001$. A correlation was also demonstrated between non-invasive markers and Syntax score: FIB-4 ($r = 820$, $p \leq 0.001$), APRI ($r = 766$, $p \leq 0.001$), HFS ($r = 869$, $p \leq 0.001$), ($r = 820$, $p \leq 0.001$), NFS ($r = 807$ $p \leq 0.001$).

Conclusions: The score of noninvasive tools to assess liver fibrosis correlates positively with the complexity of CAD and could be considered as noninvasive tools to be used in the CVR assessment in MASLD patients.

Mean comparative analysis of noninvasive fibrosis scores in coronary arterial disease				
	Monovascular (n=63)	Bivascular (n=55)	Trivascular (n=50)	p
NFS	0.27 ± 1.6	0.95 ± 1.6	0.42 ± 1.74	0.004
HFS	0.17 ± 0.18	0.27 ± 0.18	0.30 ± 0.25	<0.001
FIB4	3.84 ± 2.71	4.61 ± 3.08	4.03 ± 3.46	0.82
APRI	1.46 ± 1.11	2.16 ± 3.30	1.29 ± 1.03	0.36

Table 1_Mean comparative analysis of noninvasive fibrosis scores in coronary arterial disease

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P-62 SARCOPENIA AND PSOAS MUSCLE DENSITY ARE INDEPENDENT PREDICTORS OF SURVIVAL OF LIVER TRANSPLANT RECIPIENTS

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Introduction and Objectives: Studies have suggested an association between sarcopenia and mortality in liver transplant (LT) recipients. However, sole measurement of the area of skeletal muscle employing Psoas Muscle Index (PMI) does not estimate the muscle composition and degree of adipose atrophy of the muscle. We evaluated to association of PMI and Psoas Muscle Density (PMD) and post-LT survival in hispanic population

Patients / Materials and Methods: Retrospective review of a cohort of LT recipients at UC-Christus Clinical Hospital between 2016 and 2022. Two observers measured PMI and PMD on CT using NIH ImageJ software (version 13.0.6). Sarcopenia was defined as PMI <4.9 cm²/m² in men and <3.9 cm²/m² in women. Low psoas muscle density was defined as PMD <38 HU in men and PMD <34 HU in women. We used univariable and multivariable Cox proportional regression models to predict post-LT mortality

Results and Discussion: 112 patients with cirrhosis were included in the analysis (58 ± 10 years, 55% men). Etiologies: MASLD 50%, ALD 17%, MetALD 3.2%, autoimmune hepatitis 10%, HCV 6.4%, PBC 1.3%, others 12.1%. Child-Pugh A/B/C (5%/40%/55%), MELD Na 28 ± 7 , 27 (25%) patients presented sarcopenia. During the 72-week follow-up, 19 (17%) patients died. Sarcopenia was associated with a higher risk of post-LT mortality (HR = 3.9, 95% CI [1.6- 9.6], $p = 0.003$). Low PMD is associated with a higher risk of post-LT mortality (HR = 3.7, 95% CI [1.5-9.2], $p = 0.004$) (figure). Patients with sarcopenia and low PMD had a higher risk of post-LT mortality (HR = 10, 95% CI [2.8-38], $p < 0.001$).

Conclusions: Sarcopenia and low psoas muscle density are independently associated with a higher risk of post-LT mortality, and in combination they are a strong indicator of a higher risk of post-LT mortality.