and differences were analyzed using appropriate statistical tests and post-hoc analysis.

Results: For liver fibrosis, both devices showed strong correlation (r=0.85, p<0.05) and substantial agreement (Kappa=0.77), with greater concordance in advanced stages and no significant differences in mean values. Regarding hepatic steatosis, although Hepatus® reported higher absolute values (p<0.05), it showed an almost perfect positive linear correlation with FibroScan® (r≈1). Agreement for steatosis staging was moderate (Kappa=0.39), with discrepancies mainly observed in extreme categories (S0 vs S3).

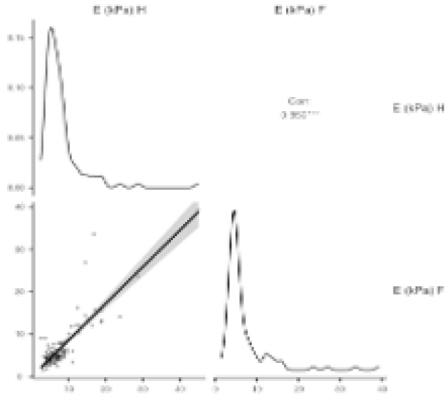
Conclusions: FibroScan® and Hepatus® show high concordance and strong correlation in assessing liver fibrosis and steatosis quantification. Hepatus® may serve as a viable clinical alternative for non-invasive evaluation of MASLD in diverse healthcare settings.

Conflict of interest: None

Characteristics of patients included in the analysis

n=122	n (%)
Median age (range)	55 (22-88)
Sex	
Male	63 (51,6)
Female	59 (48,4)
BMI (Body Mass Index)	
<30	91 (74,5)
>30	31 (25,5)
Optimal IQR/M	
FibroScan®	122 (100)
Hepatus®	122 (100)
Fibrosis	
FibroScan®	
F0-F1	95 (77,8)
F2	8 (6,7)
F3-F4	19 (15,5)
Hepatus®	
F0-F1	82 (67,2)
F2	16 (13,1)
F3-F4	24 (19,7)

Correlation of fibrosis measurements between FibroScan® and Hepatus®



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#59

FROM PATIENT TO EXPERT: EDUCATION FOR SELF-MANAGEMENT OF HEPATOCELLULAR CARCINOMA IN A CLINICAL EXCELLENCE PROGRAM

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Introduction and Objectives: Education for patients and caregivers is essential to improve understanding of hepatocellular carcinoma, support self-management, and promote informed decisions. At Fundación Cardioinfantil, a structured educational program was implemented as part of the Clinical Excellence Program. This work aims to describe the program's implementation, and the progress achieved in patient knowledge, treatment adherence, and continuity of care at home.

Materials and Methods: A descriptive, cross-sectional study was conducted to describe the educational process delivered to patients with hepatocellular carcinoma and their caregivers. Patients are initially assessed to determine their level of disease knowledge and classified into basic, intermediate, or advanced levels. Based on this, they receive a personalized education plan with printed materials and guided sessions. Progress is evaluated quarterly during follow-up visits to reinforce or adjust the intervention.

Results: Since its implementation, the program has provided education to 106 patients. Currently, 68% have progressed to intermediate or advanced levels, while 32% remain at the basic level, either because they are in the early stages of the program or awaiting the start of treatment. Among the 40 active patients, 28 have reached an advanced educational level, reflected in greater disease understanding, recognition of warning signs, and improved adherence reported during clinical follow-up.

Conclusions: Educational strategy implemented within the Hepatocellular Carcinoma Clinical Excellence Program has proven effective in empowering patients through a structured and personalized approach. The educational progress underscores the value of integrating education into clinical care, allowing patients to actively and confidently participate in managing their condition. This experience represents a replicable model that could be adapted to other chronic disease care initiatives, particularly in high-complexity healthcare settings across Latin America.

Conflict of interest: None

Figure 1. Educational Program – HCC Clinical Excellence Program

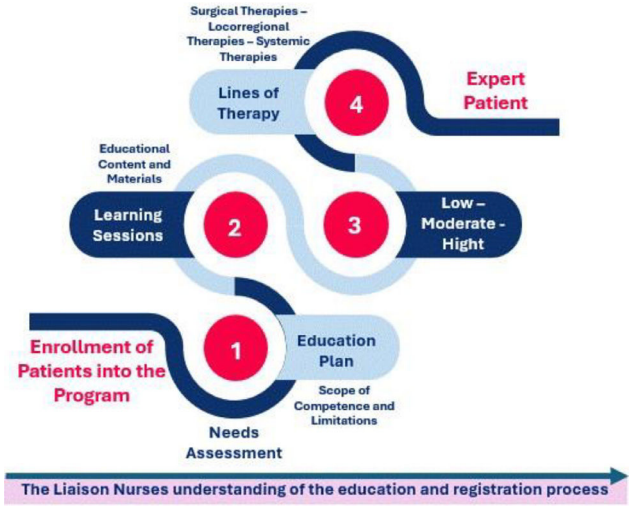
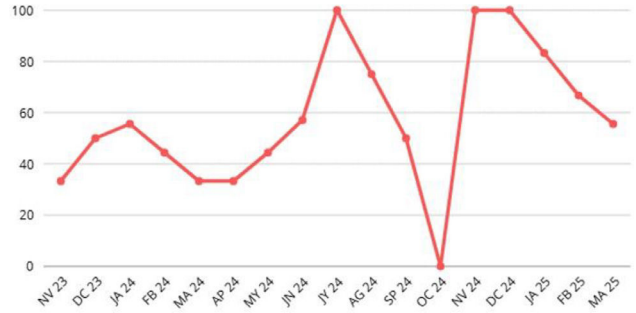


Figure 2. Educational Outcomes – HCC Clinical Excellence Program



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#60

NON-INVASIVE HEMODYNAMIC ASSESSMENT IN CIRRHOSIS: CHILD-PUGH STRATIFICATION AND A PLATELET THRESHOLD TO DEFINE THE HYPERDYNAMIC STATE

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Introduction and Objectives: Cirrhosis initially presents a hyperdynamic profile—elevated cardiac output (CO), reduced systemic vascular resistance (SVR) and arterial pressure—which may later evolve into low-output cardiocirculatory failure. Impedance cardiography (IC) enables non-invasive quantification of these changes. To integrate them, we developed the unitless Cardiac Haemodynamic Status (CHS) index, defined as $\sqrt{(CO^2 + SVR^2 + \text{arterial compliance } [AC]^2)}$, with all parameters standardised prior to calculation. This study aimed to compare CO, SVR, AC and CHS across healthy controls and cirrhotic patients stratified by Child-Pugh class (A/B/C), and to determine whether a platelet threshold lower than the conventional 140×10^3 /μL more accurately identifies the hyperdynamic circulatory phenotype.

Materials and Methods: Cross-sectional study (2023-2025) of 12 controls and 40 β-blocker–free cirrhotics (A 20, B 12, C 8). Each subject underwent IC. Normality was checked (Shapiro–Wilk); groups were compared with Kruskal–Wallis and Holm-adjusted Mann–Whitney tests. All observed platelet counts ($40–190 \times 10^3$ /μL) were screened; the cut-off with the lowest p and highest Youden index for CHS was validated by bootstrap ROC.

Results: CO, SVR, AC and CHS differed among the four groups ($p \leq 0.006$) (Table). Versus controls, C-P A showed higher SVR/CHS but lower CO/AC; C-P B displayed an isolated CO rise; C-P C had higher SVR/CHS (all $p<0.04$). A platelet threshold of 93×10^3 /μL optimally discriminated hyperdynamism (p=0.006; Cohen d 0.86; AUC 0.82). Patients below this level had higher CO, AC and CHS and lower SVR.

Conclusions: IC identifies three distinct haemodynamic phenotypes across Child-Pugh classes. The CHS index captures these profiles, while a platelet count below 93×10^3 /μL appears to be a useful surrogate of hyperdynamic circulation.

Conflict of interest: None

Variable	Controls	Child A	Child B	Child C	p
Cardiac output (CO) (L·min)	6.78 ± 1.41	4.76 ± 1.48	8.27 ± 4.10	6.20 ± 3.25	0.006
Systemic vascular resistance (SVR) (dyn·s·cm^{-5})	892 ± 207	1 677 ± 801	1 024 ± 608	1 147 ± 421	0.002
Arterial compliance (AC) (mL·mmHg^{-1})	2.69 ± 0.75	1.47 ± 0.52	2.41 ± 0.98	1.97 ± 0.93	0.001
CHS index	0.93 ± 0.21	1.74 ± 0.81	1.12 ± 0.61	1.21 ± 0.42	0.002

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#63

IRON METABOLISM DISTURBANCES ARE ASSOCIATED WITH LIVER FIBROSIS SEVERITY IN MASLD: A CROSS-SECTIONAL STUDY USING NON-INVASIVE TOOLS

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Introduction and Objectives: Metabolic dysfunction-associated steatotic liver disease (MASLD) is the most prevalent chronic liver disease worldwide. Disturbances in iron metabolism—particularly hyperferritinemia—may play a role in fibrosis progression through mechanisms involving oxidative stress and chronic inflammation.

To describe iron metabolism parameters in patients with MASLD and analyze their association with liver disease severity using non-invasive tools.

Materials and Methods: We conducted a cross-sectional study including 199 adult patients with MASLD followed at a specialized hepatology clinic (2022–2024). Clinical, anthropometric, and biochemical variables were collected, including serum ferritin, transferrin, serum iron, and transferrin saturation index (TSI). Liver fibrosis was evaluated by FIB-4 score and transient elastography (FibroScan®); steatosis was assessed by controlled attenuation parameter (CAP). Non-parametric statistical tests were applied (Spearman correlation, Kruskal–Wallis, chi-square).

Results: The mean age was 57 ± 12 years; 58.3% were women and 39.7% had type 2 diabetes. The mean BMI was 33.8 ± 6.3 kg/m^2. Hyperferritinemia was observed in 43.4% of patients. Elevated ferritin, serum iron, and TSI were significantly associated with higher FIB-4 scores ($p < 0.05$). Ferritin levels were also significantly associated with liver stiffness measured by FibroScan® ($p < 0.05$). No significant association was found between iron metabolism parameters and the degree of steatosis assessed by CAP.

Conclusions: Iron metabolism disturbances, particularly hyperferritinemia, are frequent in MASLD and associated with greater risk of liver fibrosis, but not with steatosis. These findings support the potential utility of iron biomarkers as adjunctive non-invasive indicators of disease progression.

Conflict of interest: None