On logistic multivariate regression, the variables independently associated with a ≥20% decrease in ΔLSM were the genotype CC of PNPLA3 (OR 1.71/ 95%CI 1.03-2.85; p=0.038) and final glycated hemoglobin ≤7% (OR 1.75/ 95%CI 1.04-2.94; p=0.034) . Statin use (OR 1.78/ 95%CI 0.99-3.18; p=0.05) had a borderline statistical significance.

Conclusions: A clinically significant improvement in LSM is associated with a better glycemic control and the presence of wild-type PNPLA3CC in MASLD patients with PreDM or T2DM. Future prospective studies are needed to determine whether genetic predisposition and factors of clinical importance may confer a reduction in the risk of liver-related outcomes in these high-risk populations.

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P-4 HYPOTHERMIC OXYGENATED PERFUSION USING AN ECMO DEVICE IN LIVER TRANSPLANTATION: AN ANALYSIS OF THE FIRST 100 CASES AT A CHILEAN PUBLIC HOSPITAL

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Conflict of interest: No

Introduction and Objectives: Hypothermic machine perfusion using ECMO devices has emerged as a promising technique to enhance the viability of marginal liver grafts. This study aims to present the clinical outcomes of a series of 100 liver grafts subjected to this advanced preservation methods.

Patients / Materials and Methods: A prospective analysis between October 2022 and May 2024 was conducted on 100 consecutive liver perfusion cases involving hypothermic perfusion with an ECMO device, followed by a subgroup comparison of regular and marginal grafts. Post-transplantation, key outcomes such as liver functionality, early complications, and overall survival were monitored in all patients. Statistical analyses included T-tests and Fisher's exact tests to evaluate differences in means and frequencies between groups.

Results and Discussion: Three grafts were discarded due to severe steatosis. The patient cohort had a mean MELD Na score of 29.0 ± 8.72. The one-year survival rate was 82.7%. The major complication was infectious, observed in 57.7% of cases. The mean ICU and hospital stay was 10.98 ± 14.29 and 28.24 ± 24.78 days, respectively. Eighty-one liver grafts were categorized as regular (83.5%) and 16 as marginal (16.4%). Vascular complications were significantly more frequent in marginal grafts compared to regular grafts. No statistically significant differences in other clinical outcomes were observed between the regular and marginal graft groups (Table 1).

Conclusions: The findings suggest that hypothermic perfusion using ECMO devices facilitates the safe utilization of marginal liver grafts. While the overall clinical outcomes are promising and comparable to international standards, the high incidence of infectious complications and extended ICU and hospital stays highlight significant areas for improvement. These challenges appear to be more related to the severity of the patient's conditions, as indicated by the elevated average MELD Na score, rather than the quality of the grafts. Therefore, hypothermic perfusion represents a viable strategy for expanding liver graft selection criteria in transplantation.

Table 1: Clinical outcomes

Recipient characteristics	All (n=97)	Regular (n=81)	ECD (n=16)	P value
Age (y)	54.38 ± 11.65	54.51 ± 11.52	53.75 ± 12.68	0.813
BAR	10.88 ± 4.75	10.76 ± 4.82	11.39 ± 4.53	0.617
MELD-Na	29.0 ± 8.72	28.90 ± 8.90	29. 50 ± 8.0	0.803
Recipient (Follow up 3m)				
Transaminase peak AST (UI/L)	1740 ± 3279	1503 ± 2754	2942 ± 5151	0.109
Transaminase 7-day AST (UI/L)	145.6 ± 581.3	162.7 ± 633.0	55.93 ± 41.62	0.517
INR 7-day	1.33 ± 0.70	1.35 ± 0.76	1.24 ± 0.14	0.591
Bili 7-day (mg/dL)	3.86 ± 4.38	4.22 ± 4.67	1.94 ± 1.24	0.064
ICU stay (d)	10.98 ± 14.29	10.62 ± 11.54	13.00 ± 25.30	0.568
Hospital stays (d)	28.24 ± 24.78	28.13 ± 25.71	28.79 ± 20.42	0.928
SPR	18 (18.56%)	13 (16.04%)	5 (31.25%)	0.168
EAD	25 (25.77%)	19 (23.45%)	6 (37.5%)	0.346
PNF	1 (1.03%)	1 (1.23%)	0	>0.999
Complications > CD IIIa	54 (55.67)	44 (54.32%)	10 (62.5%)	0.593
Relaparotomy	16 (16.49%)	13 (16.04%)	3 (18.75%)	0.724
Vascular complications	11 (11.3%)	6 (7.40%)	5 (31.25%)	**0.016**
Anastomotic strictures	10 (10.3%)	8 (9.87%)	2 (12.5%)	0.668
Non anastomotic strictures	0	0	0	-
Infections	56 (57.7%)	48 (59.25%)	8 (50%)	0.583
Neurological	26 (26.8%)	21 (25.92%)	5 (31.25%)	0.758
Hemorrhagic	11 (11.3%)	7 (8.64%)	4 (25%)	0.080
Others	39 (40.2%)	33 (40.74%)	6 (37.5%)	>0.999
Acute reject	7 (7.2%)	6 (7.40%)	1 (6.25%)	>0.999
Death	17 (17.52%)	15 (18.51%)	2 (12.5%)	0.729

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P-5 A LARGE REGISTER OF LIVER STIFFNESS AND STEATOSIS BY TRANSIENT ELASTOGRAPHY IN METABOLIC ASSOCIATED STEATOTIC LIVER DISEASE – THE FIRST STEP FOR AN ADEQUATE PATIENT ALLOCATION

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Conflict of interest: No

Introduction and Objectives: In Metabolically Associated Steatotic Liver Disease (MASLD), transient elastography (TE) is the best validated point-of-care tool to assess liver fibrosis. Outpatients without advanced fibrosis might be managed at low-complexity centers, aiming to increase the availability of experts to manage patients with advanced fibrosis. We sought to evaluate the prevalence of advanced fibrosis among MASLD outpatients from a university center compared to those from lower complexity settings.

Patients / Materials and Methods: This was a sectional study of MASLD outpatients at a university hospital (G1) and those followed up at lower complexity settings such as primary care or medium complexity clinics(G2). All patients performed TE with CAP by Fibroscan Touch 502 (Echosens, Fr) from Jan-2015 to Mar-2024. TE and CAP results were compared between the two groups and the groups' prevalence of individuals with TE<8 kPa and TE≥12 kPa.

Results and Discussion: 4058 exams were registered (70% women, mean age 60 ±12 yrs, BMI 32.7 ± 6.5). Outpatients from G1 were older (p< 0.001) and comprised 80% of included patients. Although G1 had higher CAP measures [298Db/m (258-336) vs

293 Db/m (249-334);p=0.034], both groups seemed similar regarding steatosis severity. Surprisingly, liver stiffness between G1 and G2 was similar [6,4 kPa (4.9-8.1) vs 6.3 kPa (4.9-9.1);p=0.49]. Advanced fibrosis (TE< 8.0 kPa) was discarded in 66.7% of G1 and 69,2% of G2 (p=0.18). Overall, 15% had advanced fibrosis with a trend to a higher prevalence in G1 (16.1% vs 13.5%; p=0.08).

Conclusions: Although outpatients from lower complexity settings were younger, advanced fibrosis prevalence was similar and not neglectable compared to high complexity center outpatients. Screening MASLD patients in lower-complexity settings increases the chance of identifying younger individuals with advanced liver disease who need expert's evaluation to prevent liver-related complications. Additionally, public policies might be implemented to reallocate patients with lower and severe diseases accordingly.

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P-6 CORRELATION BETWEEN CONNECTIVE TISSUE GROWTH FACTOR (CTGF) AND FIBROSIS DEGREE IN PATIENTS WITH PRIMARY BILIARY CHOLANGITIS (PBC)

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Conflict of interest: No

Introduction and Objectives: Connective Tissue Growth Factor (CTGF) is a multifunctional protein recognized as an important mediator in fibrogenic pathways in liver diseases. Primary Biliary Cholangitis (PBC) is a chronic autoimmune disease that affects the bile ducts. It is characterized by inflammation and progressive fibrosis of the bile ducts, which can lead to stenosis, cholestasis, and long-term liver damage.

The objective of this study is to establish the correlation between serum levels of Connective Tissue Growth Factor (CTGF), measured using Enzyme-Linked Immunosorbent Assay (ELISA), and the degree of hepatic fibrosis assessed by transient elastography in patients with cholestasis diagnosed with Primary Biliary Cholangitis (PBC).

Patients / Materials and Methods: Prospective, analytical, experimental study. Three groups were recruited: the first group comprised patients with cholestasis, the second group comprised patients with cirrhosis due to Hepatitis C Virus (HCV), and the third group comprised healthy subjects. Anthropometric and biochemical data were collected. A blood sample was collected to quantify serum levels of CTGF using ELISA. The degree of fibrosis was determined by transient elastography. *Statistical analysis:* Data are presented as Mean±SD or Median (IQR 25-75). They were analyzed by one-way ANOVA with Tukey's post-hoc test or Kruskal-Wallis with Dunn's post-hoc test. The following parameters were calculated: Sensitivity (S), Specificity (E), Positive Predictive Values (PPV), Negative Predictive Values (NPV), and the area under the ROC curve (AUROC). A p-value <0.05 was considered significant.

Results and Discussion: Thirty patients with cholestasis diagnosed with PBC were included, along with a group of subjects with cirrhosis due to Hepatitis C Virus (VHC-F4, n=6), and a control group without liver disease (C, n=17). It was observed that there is a positive correlation between CTGF levels and the degree of fibrosis in patients with cholestasis (PBC), but not in patients with cirrhosis due to HCV. Using a cutoff point of 630 pg/mL, a sensitivity (S) of 0.93, specificity (E) of 0.91, positive predictive value (PPV) of 0.93, negative predictive value (NPV) of 0.91, and an area under the ROC curve (AUROC) of 0.97 with a Youden index of 0.85 were obtained (Figure 1). With a serum CTGF value of 520 pg/mL in patients with PBC without fibrosis or with moderate fibrosis compared to controls and HCV-F4, a sensitivity (S) of 0.75, specificity (E) of 0.87, and AUROC of 0.88 for F0, and a sensitivity (S) of 0.91, specificity (E) of 0.87, and AUROC of 0.94 for F2 were identified (Figure 1). Regarding the degree of fibrosis, CTGF was significantly higher in F4 compared to F0 in patients with PBC. In the case of the VHC-F4 group, there were no differences compared to the group without liver disease, suggesting a specificity of CTGF for fibrosis due to cholestatic disease (Figure 2).

Conclusions: There is a direct correlation between serum levels of CTGF in patients with cholestasis and the degrees of fibrosis measured by transient elastography, as well as specific cutoff points for discrimination with and without fibrosis for PBC.

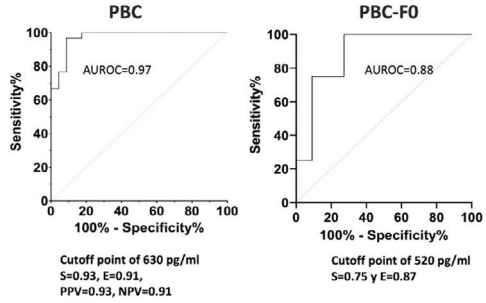
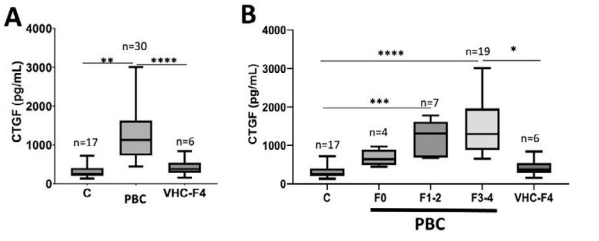


Figure 1. (A) ROC curve of serum CTGF levels in patients with PBC and advanced fibrosis. **(B)** ROC curve of serum CTGF levels in patients with PBC without fibrosis.



Median (RIC). Kruskal-Wallis con post-hoc de Dunn. *p<0.05, **p<0.01, ***p<0.005, ****p<0.001

Figure 2. (A) Box and whisker plot of the 3 study groups and the CTGF value. **(B)** Box and whisker plot of the study groups, the PBC group by fibrosis grades, and the CTGF value.

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