

with the first lentiviral candidate (siHBV-1), targeting S/Pol genes of HBV (108 TU/mL), three days later. Quantification of HBV proteins using chemiluminescence and HBV DNA using quantitative PCR (qPCR) was performed throughout the post-transfection period.

Results and Discussion: Effective silencing of HBsAg expression was observed in cells infected with siHBV-1, with undetectable levels from the third day post-infection compared to untreated controls ($p < 0.002$). Furthermore, HBV DNA was undetectable by qPCR, indicating successful silencing of HBV genotype A in vitro. The production of lentiviral candidates siHBV-2 and siHBV-3 is currently under evaluation. Flow cytometry will be used to determine the transduction rates in Huh7 cells once the tests are completed. Future investigations will explore combinations of these three siHBV vectors to optimize HBV silencing.

Conclusions: Lentiviral vector-mediated RNAi offers a promising approach for sustained suppression of HBV replication and gene expression, potentially promoting HBV clearance in chronic carriers.

<https://doi.org/10.1016/j.aohep.2024.101615>

P-2 RECAM VS. RUCAM: ADVANCING THE DIAGNOSIS OF IDIOSYNCRATIC DILI WITH A REVISED ELECTRONIC APPROACH.

Sara Pillajo¹, Daniela Chiodi¹, Ximena Pazos¹, Adriana Sánchez², Inmaculada Medina-Cáliz³, Fernando Bessone⁴, María Isabel Lucena³, Nelia Hernandez¹

¹ HOSPITAL DE CLINICAS, Montevideo, Uruguay

² HOSPITAL DE CLÍNICAS, Montevideo, Uruguay

³ Hospital Universitario Virgen de la Victoria, Málaga, España

⁴ Hospital Provincial del Centenario, Rosario, Argentina

Conflict of interest: No

Introduction and Objectives: Background: RUCAM has been a cornerstone in the causality assessment of DILI for the last three decades. However, the emergence of the Revised Electronic Causality Assessment Method (RECAM) promises enhanced accuracy and efficiency. Aim: to compare both scales and assess RECAM's performance in a prospective DILI registry.

Patients / Materials and Methods: The analysis was conducted on well-vetted DILI cases from a prospective multicenter cohort from a single country, in which RUCAM initially assessed causality. After applying the RECAM, the results and significant causes of discrepancy were analyzed

Results and Discussion: among 180 DILI-suspicions induced by conventional agents, RUCAM excluded 3.8% of cases and classified 38.8% as highly probable, 41.6% as probable, and 15.5% as possible. RECAM upgraded 66 cases (36.7%), downgraded 42 (23.3%), and left 72 (40%) unchanged. RECAM upgraded seven cases excluded by RUCAM to probable (3) or possible (4) and excluded one case considered probable by RUCAM. The figure shows the flow of classifications from RUCAM to RECAM. Variability in results between the RECAM and RUCAM was mainly due to differences in the domains assessing latency, particularly prolonged onsets (>60 days after drug initiation or >30 days after cessation accounted for 42.5% of differences), and the lack of Virus E serology as a determining factor.

Conclusions: RECAM proved to be a straightforward tool for evaluating DILI causality in clinical practice, offering improved objectivity when used prospectively and with all critical information available (particularly hepatitis virus markers). However, it is crucial to remain vigilant and pay particular attention to drugs with a long latency period.

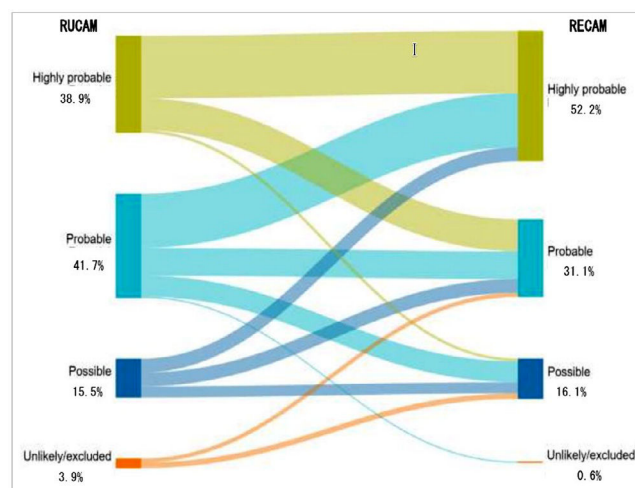


Figure: The flow of classifications from RUCAM to RECAM shows shifts into higher likelihood categories of DILI and how the revised method reclassifies cases initially categorized by the previous method.

<https://doi.org/10.1016/j.aohep.2024.101616>

P-3 FACTORS ASSOCIATED WITH AN IMPROVEMENT IN SEQUENTIAL LIVER STIFFNESS MEASURES BY TRANSIENT ELASTOGRAPHY IN MASLD PATIENTS WITH PREDIABETES AND TYPE 2 DIABETES.

Lorrane Viana Santos¹, Claudia Regina Lopes Cardoso¹, Gil Fernando Salles¹, Ana Carolina Cardoso¹, Cristiane Villela-Nogueira¹, Nathalie Carvalho Leite¹

¹ UNIVERSIDADE FEDERAL DO RIO DE JANEIRO, Rio de Janeiro, Brasil

Conflict of interest: No

Introduction and Objectives: There is increasing evidence that a $\geq 20\%$ decrease in sequential liver stiffness measurements (Δ LSM) by transient elastography (TE) is associated with a lower risk of long-term liver-related outcomes and mortality in patients with MASLD. Objective: We aimed to evaluate factors associated with $\geq 20\%$ decrease in Δ LSM in MASLD patients with prediabetes (Pre-DM) and type 2 diabetes (T2DM).

Patients / Materials and Methods: MASLD adults with PreDM or T2DM with two consecutive reliable LSMs by transient TE (Fibroscan Touch 502) were included. Clinical, biochemical and elastography data were collected at baseline and follow-up. PNPLA3 (rs738409 C>G) genotypes were determined. A multivariate logistic regression analysis was performed to evaluate the variables independently associated with $\geq 20\%$ decrease in Δ LSM. All data were analyzed using the statistical package SPSS (vs.24.0,IBM), a p-value < 0.05 was regarded as significant.

Results and Discussion: 294 patients were included (70% female, 60 ± 10 y, 63% with BMI ≥ 30 kg/m²): 14% had PreDM and 86% T2DM. Genotyping of PNPLA3 was identified as CC in 46% and CG+GG in 54%. At the first TE, 10% had LSM > 15kPa [median 7.0 kPa (5.1-10.1)]. Overall, 31% experienced a $\geq 20\%$ decrease in Δ LSM on a 38 (26-52) months interval.

On logistic multivariate regression, the variables independently associated with a $\geq 20\%$ 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 $\leq 7\%$ (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.

<https://doi.org/10.1016/j.aohep.2024.101617>

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

FRANCISCA MAGDALENA MARTÍNEZ VENEZIAN¹, Elizabeth Rivas², Valeria Galaz³, Valentina Castillo², Julio Benitez³, Edmundo Martinez³, Rodrigo Wolff³, Blanca Norero³, Erwin Buckel³, Rolando Rebolledo⁴

- ¹ Pontificia Universidad Católica de Chile, Santiago, Chile
- ² Instituto de Ingeniería Biológica y Médica/Pontificia Universidad Católica de Chile, Santiago, Chile
- ³ Hospital Dr. Sotero Del Río, Santiago, Chile
- ⁴ Hospital Dr. Sotero Del Río. Instituto De Ingeniería Biológica Y Médica/Pontificia Universidad Católica De Chile, Santiago, Chile

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 (U/L)	1740 ± 3279	1503 ± 2754	2942 ± 5151	0.109
Transaminase 7-day AST (U/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

<https://doi.org/10.1016/j.aohep.2024.101618>

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

Ana Carolina Cardoso¹, João Marcello De Araújo Neto¹, Pedro Miguel Mattos Nogueira¹, Nathalie Carvalho Leite¹, Cristiane Villela-Nogueira¹

¹ UNIVERSIDADE FEDERAL DO RIO DE JANEIRO, Rio de Janeiro, Brasil

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 $TE < 8 \text{ kPa}$ and $TE \geq 12 \text{ kPa}$.

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