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ABO - INCOMPATIBLE LIVER TRANSPLANTATION FROM DECEASED DONORS: A PROMISING ALTERNATIVE FOR LATIN AMERICA IN LOW ORGAN DONATION SCENARIOS

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Introduction and Objectives: The utilization of ABO-incompatible organs in deceased donor liver transplantation (ABOi-DDLT) has increased with the implementation of desensitization protocols, yielding comparable outcomes to ABO-compatible (ABOc) LT. However, there are no reports from Latin America, a region facing low donation rates, restricted resources and limited access to living donor LT.

To evaluate the feasibility and safety of ABOi-DDLT as a therapeutic strategy in emergency settings.

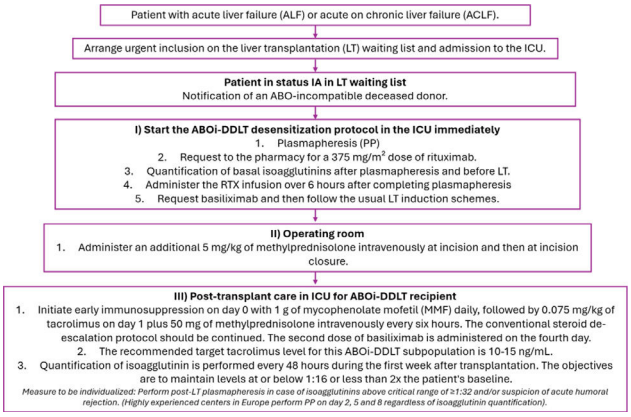
Materials and Methods: Retrospective study of DDLT recipients for acute liver failure, ≥12 years of age, between 2009-2024, in a liver transplantation center. Clinical characteristics, complications and survival outcomes were analyzed.

Results: Eight DDLT were performed (3 ABOi, 5 ABOc), 87.5% were female. Underlying etiologies were Wilson's disease(n=6) and drug-induced liver injury(n=2). The ABOi group presented higher clinical severity (MELD-Na: 37 vs. 27). ABOi-DDLT desensitization included plasmapheresis(n=3) and rituximab(n=2), plus immunosuppression with basiliximab(n=3), tacrolimus(n=3), mycophenolate(n=2) and steroids(n=3). Pre-ABOi-DDLT isoagglutinins titers were quantified in 2 cases (anti-A/B: 1:64 and 1:8), with post-transplantation peaks (anti-A/B: 1:128) managed conservatively. One ABOi-patient developed antibody-mediated rejection, effectively treated with plasmapheresis and intravenous immunoglobulin. Biliary strictures occurred earlier in ABOi-patients (4 vs. 20 months). Rates of bacterial and viral infections were similar, whereas fungal infections were observed only in ABOc-recipients. One- and three-year survival was 100% in both groups; five-year survival was 100% in ABOi and 66.6% in ABOc recipients.

Conclusions: ABOi-DDLT is a reliable and effective alternative. This study may serve as a foundation for a multicenter study led by ALEH aiming to further explore the issue across the region.

Conflict of interest: None

Proposed protocol for ABOi-DDLT applicable to Latin America.



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TRANSFORMING OUTPATIENT HEPATIC CARE IN LATIN AMERICA: A SCALABLE, NURSE-DRIVEN APPROACH

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Introduction and Objectives: Chronic liver diseases are increasingly prevalent in Latin America, where fragmented care and hospital overcrowding limit timely, cost-effective management. Nurse-led outpatient programs may offer a viable alternative in resource-constrained environments.

To evaluate the safety and cost-effectiveness of a nurse-driven Outpatient Intervention Program (OIP) for patients with liver disease and its potential scalability across Latin America.

Materials and Methods: An OIP was implemented in 2019 at a tertiary care transplantation center. The program included outpatient liver biopsies (LB), albumin and blood product infusions, and diagnostic/therapeutic paracentesis. Retrospective data from 2019-2024 were analyzed.

Results: A total of 418 procedures were performed on 258 patients: 162 LB, 104 albumin or blood product infusions, and 152 paracentesis. This demonstrates a 3,240% increase in the number of LB and a 1,680% increase in paracentesis compared to 2018, before the program began.

The overall complication rate was 0.87% (4 complications), with only 2 major events (0.43%): spontaneous bacterial peritonitis after paracentesis and post-biopsy bleeding.

LB costs dropped from $2,894 to $549, generating $379,890 in savings over six years, due to avoiding overnight hospitalization. Paracentesis, albumin infusions and blood transfusions were previously performed in the emergency department, incurring an additional expense of $420. This transition to OIP generated total savings of $107,160 and contributed to reduced congestion in the emergency department.

Conclusions: This nurse-led model yields promising results in outpatient liver care and represents a cost-effective, Potential intervention. Its integration into public health systems across Latin America could contribute to more efficient management of CLD.

Conflict of interest: None

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CRITICAL MEDIATORS OF INFLAMMATION-DRIVEN HEPATOCARCINOGENESIS INDUCED BY METABOLIC DYSFUNCTION-ASSOCIATED STEATOTIC LIVER DISEASE

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Introduction and Objectives: Metabolic dysfunction–associated steatotic liver disease (MASLD) is increasingly recognized as a precursor to hepatocellular carcinoma (HCC). In addition, sustained inflammation is emerging as a critical promoter of the transition from steatosis to liver cancer. To evaluate the role of inflammation in hepatocarcinogenesis induction by MASLD.

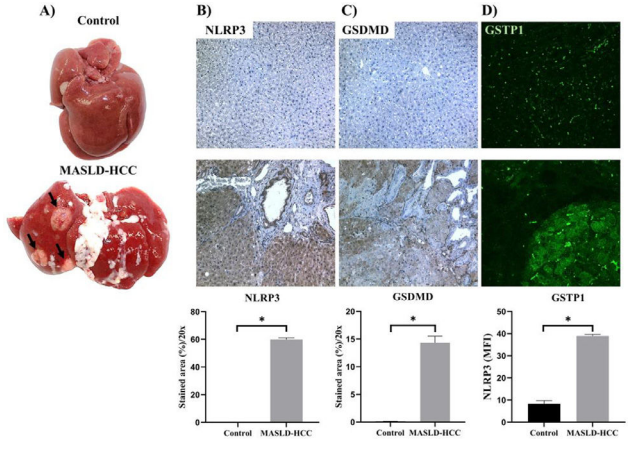
Materials and Methods: Fischer 344 rats were fed a diet rich in fat, cholesterol, and sucrose, and administered low doses of CCl_4 and DEN intraperitoneally for 16 weeks. Liver damage, steatosis, inflammatory, and carcinogenesis-related markers were assessed through biochemical assays, immunohistochemical, and western blot analysis. Data were analyzed using one-way analysis with significance set at $p < 0.05$. All the experiments were approved by the ethics committee of CINVESTAV-IPN (protocol No. 310-20).

Results: The liver of MASLD-HCC groups shows visible tumor nodules and surface alterations (Figure 1A). Immunohistochemical and immunofluorescence analysis revealed a marked increase in NLRP3, GSDMD, and GSTP1 levels in MASLD-HCC group (Figure 1B-D), indicating the activation of inflammasome and pyroptosis pathways and suggesting a link between chronic inflammation and cellular transformation. The hepatotoxins induced a strong inflammatory response, with increased hepatic expression of NLRP3 inflammasome components. These alterations were accompanied by the increase in serum liver damage and neoplastic markers, which correlated with the appearance of neoplastic lesions.

Conclusions: Chronic inflammation induced by diet and hepatotoxic compounds serves as a central driver in the HCC development-associated MASLD. This finding supports the hypothesis that the inflammation-carcinogenesis axis plays a significant role in MASLD progression.

Conflict of interest: None

Key markers involved in amplifying inflammatory responses driving hepatocarcinogenesis in the MASLD context.



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EARLY IDENTIFICATION OF LIVER TRANSPLANTATION REQUIREMENT IN ALCOHOL-ASSOCIATED HEPATITIS

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