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Introduction: Idiosyncratic DILI is a challenging condition, believed to involve the immune system. This hypothesis is supported by various identified HLA risk alleles.

Objectives: To evaluate a potential role of the immune system in DILI through leukocyte immunophenotyping.

Methods: Blood samples were collected from adjudicated DILI (n=12) and viral hepatitis (VH, 13) at day 1 (recognition), 7 and >30. A single blood sample was extracted from healthy liver controls (HLC, 54). Leukocyte populations and immune checkpoint expressions were determined based on cell surface receptors, except for CTLA-4 that was determined intracellularly, using multiparametric flow cytometry.

Results: No differences were detected in leukocytes, lymphocytes or neutrophils counts at day 1. However, DILI ($0.57 \times 10E09/L$, p=0.037) and HV ($1.41 \times 10E09/L$, p<0.0001) had increased monocyte levels than HLC ($0.35 \times 10E09/L$). At day 1 DILI presented higher levels of activated helper T-cells (CD4+/DR+) and activated cytotoxic T-cells (CD8+/DR+) than HLC (14%vs6.3%, p<0.0001; 31%vs15%, p=0.0003, respectively). The same trend was detected for VH. A strong correlation between activated CD4+ and CD8+ was found in DILI (r=0.85, p<0.001), but less in VH (r=0.58, p=0.0015). Regarding helper T-cell subpopulations, DILI had higher level of Th1 (52vs42%, p=0.0358), while VH had lower level of Th9 than HLC (13%vs18%, p=0.0112). Regarding immune checkpoint expressions on CD4+, DILI presented higher intracellular CTLA-4 level than HLC (28%vs18%, p=0.0192). Higher expression of checkpoint ligand PD-1L on monocytes was also found in DILI (5.3%vs3.4%, p=0.0452) and VH (9.1%vs3.4%, p<0.0001). The level of all leukocyte populations and checkpoint expressions in DILI and VH approached HLC levels in the later samples, except for CD28 and CD86 that are constitutively expressed.

Conclusion: Our findings suggest that an adaptive immune response is involved in DILI in which activated CD4+ and CD8+ play important roles. Increased expression of negative immune checkpoints and ligands reflects restoration of immune homeostasis. Funding:PI16/01748, PI19/00883, CIBERehd-ISCIII

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O-3 TRENDS IN DECEASED DONOR AND LIVING DONOR LIVER TRANSPLANTATION IN LATIN AMERICAN COUNTRIES DURING A DECADE (2010-2019) . THE ALEH SPECIAL INTEREST GROUP, INTERNATIONAL SURVEY 2020

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Background: Brazilian public health system currently provides universal free all oral direct-acting antiviral (DAA) therapy for patients with hepatitis C virus (HCV) infection. Despite high rates of sustained virological response (SVR), patients with cirrhosis remain at risk for hepatocellular carcinoma (HCC).

Objectives: The aim of this study was to investigate incidence, risk factors and tumor pattern at presentation in a cohort of Brazilian HCV-related cirrhotic patients treated with DAAs.

Methods: This prospective cohort study included patients with HCV-related cirrhosis treated with DAAs and followed for at least 24 weeks after therapy at the Viral Hepatitis Outpatient Clinic of Hospital de Clinicas de Porto Alegre, Brazil, between August 2016 and November 2017. Ultrasound screening was performed within 24 weeks before DAA therapy and patients with presumed past or current HCC were excluded. Primary outcome was HCC incidence. Secondary outcomes were risk factors for HCC ocurrence and tumor pattern at presentation. Multivariate analysis was used to identify independent variables associated with HCC development.

Results: A total of 234 patients with HCV cirrhosis were included. Fifty-six percent were males with a mean age of 61.2±10.9 years. Overall SVR was 97.4%. Child-Turcotte-Pugh (CTP) A, B and C at baseline was found, respectively, in 89.3%, 9.4% and 1,3%. Mean Model for End Stage Liver Disease (MELD) score was 9.17 ± 2.82. Esophageal varices were found in 43.6% of the patients. Type 2 diabetes was present in 18.8%. *De novo* HCC was diagnosed in 9% (21/234) of the patients during follow-up. Tumor pattern at presentation according to BCLC staging was 0, A, B, C and D in 19,1%, 47.6%, 4.8%, 28.6% and 0%, respectively. Multivariate analysis showed significant relative risk (RR) for HCC occurrence associated with the following variables: baseline MELD score ≥10 (RR: 1.8; p=0.05); absence of SVR (RR: 6.9; p=0.04); baseline platelet count $<120 \times 10^9$/L (RR: 5.0; p=0.04) and baseline albumin level <3.5 mg/dL (RR: 4.6.

Conclusions: A high incidence of HCC was found after DAA therapy compared to the literature, particularly among patients with more advanced cirrhosis, particularly those with baseline albumin levels < 3.5 g/dL plus platelets $< 120 \times 10^9$/L. Absence of SVR was also significantly associated with HCC development. The majority of patients presented with very early (BCLC 0) or early (BCLC A) HCC, although a significant proportion showed advanced stage (BCLC C) at presentation.

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O-4 IMPACT OF BRIDGE THERAPY FOR HEPATOCELLULAR CARCINOMA IN PATIENTS SUBMITTED TO LIVER TRANSPLANTATION - BRAZILIAN MULTICENTER STUDY

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Background: Hepatocellular carcinoma (HCC) is one of the main indications for liver transplantation (LT). Bridge therapy (BT) is recommended when waiting time on transplant list is longer than six months to avoid tumor progression and dropout. Response to locoregional treatment has been considered as a good prognostic parameter in post-LT, however, its role still needs to be defined.

Aims: To evaluate the role of BT for HCC on survival and post-LT tumor recurrence.

Methods: Brazilian multicenter retrospective cohort study in HCC patients submitted to LT with clinical and radiological data analysis. Data related to HCC pre-LT treatment, type of treatment and the final response according to mRECIST criteria in the last pre-LT image exam were analyzed. Survival curves were presented using the Kaplan-Meier and compared using the log-rank test.

Results: 1,119 patients were included. 81% were males and mean age at LT was 58 ± 8.2 years. At HCC diagnosis, 85% were within Milan criteria (MC) by imaging studies and 67%, underwent BT prior to LT. TACE/TAE were performed in 80%, PEI 9%, RFA 3%, surgery 1% and combined therapy 7%. According to mRECIST, 37% showed