

superfamily 2) that is associated not only with the serum lipid levels, including serum total cholesterol, low-density cholesterol (LDL-C), and triglycerides, but also the risk of cardiovascular disease. The Dallas Heart Study reported that rs58542926 is associated with hepatic fatty infiltration. *Objective:* To establish the frequency of the C> T polymorphism in the TM6SF2 gene (rs58542926).

Patients / Materials and Methods: A multistage random sample was drawn from an inpatient population between 40 and 70 years of age.

We analyzed the DNA of thirty-five (35) patients. Genomic DNA was extracted from peripheral blood leukocytes. For genotyping of SNP rs58542926, the following pair of primers was used: forward = 5'- GGT CTT GGC ACA AAT CCG GT-3' and reverse = 5'- AAG AGA AAT TGG CAG CTG GA-3'.

Results and Discussion: The frequency of the minor allele T (KK) was 0.000 and the frequency of the ancestral allele C (EE) was 1.0000; These frequencies were similar to those observed in a frequency report from the 1000 genomes project (<http://browser.1000genomes.org/>). The association with fatty liver infiltration may be due to the founder effect, genetic drift, or possibly population inbreeding. In addition, it could be a selective disadvantage compared to other pathologies such as fatty liver.

Conclusions: The results for the C/C and C/T genotypes studied are like those of other previous studies. The presence of the ancestral C allele (EE) in 100% of the patients suggests a probable genetic deviation or founder effect, probably increasing the frequency of this allele over the other existing alleles.

SAMPLE	1622	1623	1624	1525	1626	GenotYPE
TM6SF2 rs58542926	G	G	C	T	C	C/C
1	G	G	C	T	C	C/C
2	G	G	C	T	C	C/C
3	G	G	C	T	C	C/C
4	G	G	C	T	C	C/C
5	G	G	C	T	C	C/C
6	G	G	C	T	C	C/C
7	G	G	C	T	C	C/C
8	G	G	C	T	C	C/C
9	G	G	C	T	C	C/C
10	G	G	C	T	C	C/C
11	G	G	C	T	C	C/C
12	G	G	C	T	C	C/C
13	G	G	C	T	C	C/C
14	G	G	C	T	C	C/C
15	G	G	C	T	C	C/C
16	G	G	C	T	C	C/C
17	G	G	C	T	C	C/C
18	G	G	C	T	C	C/C
19	G	G	C	T	C	C/C
20	G	G	C	T	C	C/C
21	G	G	C	T	C	C/C
22	G	G	C	T	C	C/C
23	G	G	C	T	C	C/C
24	G	G	C	T	C	C/C
25	G	G	C	T	C	C/C
26	G	G	C	T	C	C/C
27	G	G	C	T	C	C/C
28	G	G	C	T	C	C/C
29	G	G	C	T	C	C/C
30	G	G	C	T	C	C/C
31	G	G	C	T	C	C/C
32	G	G	C	T	C	C/C
33	G	G	C	T	C	C/C
34	G	G	C	T	C	C/C
35	G	G	C	T	C	C/C

Results: TMG polymorphisms

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P-20 HIGH PREVALENCE OF CHRONIC HEPATITIS B IN ACHE COMMUNITIES IN THE DEPARTMENT OF CANINDEYU-PARAGUAY

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Conflict of interest: No

Introduction and Objectives: Hepatitis B is a disease that can lead to cirrhosis, acute liver failure, hepatocellular carcinoma, or death. Paraguay is considered a country with a low incidence of hepatitis B. The discovery of two cases of hepatocellular carcinoma associated with hepatitis B, in a community of the Aché indigenous group in the Department of Canindeyú, motivated an initial investigation that aroused the suspicion of a high rate of hepatitis B in those communities. *Objectives:* Determine the prevalence of hepatitis B in the Aché communities of the department of Canindeyú-Paraguay in order to program therapeutic and preventive measures in said population.

Patients / Materials and Methods: A joint working group was organized between the Ministry of Health and a Medical University. The population studied were the inhabitants of the “Kué Tuvý” and “Chupa Pou” communities, of the Aché ethnic group in the department of Canindeyú, Paraguay. In November 2022 and March 2023, a total of 399 natives attended the call made by community leaders and were subjected to capillary blood detection tests for HBsAg. In patients with a positive test, the following were performed: clinical history, physical examination, anthropometry, and abdominal ultrasound.

Results and Discussion: In the first community of 226 people tested, 17 were positive. In the second community, 173 samples were taken and 19 were positive. Globally it represents a prevalence of 9.02% (36/399). The positive cases for HBsAg were distributed by sex: 53% men and 47% women, with an age range of 21 to 56 years with a median of 38 years.

Conclusions: The prevalence of hepatitis B in Aché communities in Paraguay is much higher than in the general population, so it is necessary to carry out a microelimination and prevention plan.

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P-21 THE ROLE SP-INDUCED MAST CELL ACTIVATION IN LIVER FIBROSIS

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Conflict of interest: No

Introduction and Objectives: A high density of liver mast cell is associated to liver damage progression in chronic liver diseases. Emerging evidence have suggested that MC degranulation play a crucial role in liver fibrosis induced by hepatic stellate cells (HSCs) activation. However, the contribution of neuroimmune activation of MC by stress related neuropeptide Substance P(SP) remains unexplored. **Objective:** To evaluate the impact of SP-dependent MC activation in HSCs transdifferentiation.

Patients / Materials and Methods: In vitro studies were performed by using Human mast cell line (HMC-1), stimulated with SP (30min), and HSCs cell line (LX-2), subsequently stimulated by 24h with supernatants of SP-MC activated. Supernatants of unstimulated (ns) MC and MC stimulated with 48/80 compound, as well as a direct LX-2 SP (dSP) stimulation were considered as experimental control. Western blotting was performed to measure α -smooth muscle actine (α -SMA) expression level, a HSCs transdifferentiation marker, and GADPH, as loading control. A direct stimulation of HSCs by trypsin for 24h and subsequent α -SMA immunostaining by indirect immunofluorescent was performed for qualitative assessment of HSC morphology. Statistical analyses: ANOVA test in experimental replicates (N=3), by using GraphPad Prism. Significance was set at $p < 0.05$.

Results and Discussion: Despite not statistically differences were observed in fold change α -SMA/GADPH level expression among SP stimulated MC and other experimental groups (ns MC, 0.394 ± 0.08 ; 48/80 MC, 0.256 ± 0.130 ; SP MC, 0.274 ± 0.120 ; dSP, 0.621 ± 0.524) $p = 0.544$, morphological changes of HSCs associated to cell transdifferentiation were observed after 24h of trypsin stimulation.

Conclusions: Our results shown that MC trypsin can induce HSCs transdifferentiation. Short-term effect of SP-MC activation fail to achieve in HSCs activation, suggesting long term MC stimulation need to be explored to evaluate SP-MC impact in HSCs transdifferentiation. Funding OAIC n°13022.

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P-22 URINARY BIOMARKER NEUTROPHIL GELATINASE-ASSOCIATED LIPOCALIN (NGAL) FOR IDENTIFYING ACUTE KIDNEY INJURY IN PATIENTS WITH SEVERE ALCOHOLIC HEPATITIS AND CIRRHOSIS

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Conflict of interest: No

Introduction and Objectives: Patients with hepatic cirrhosis (HC) and severe alcoholic hepatitis (AH) are at risk of developing acute kidney injury (AKI) due to multiple factors. The main phenotypes of AKI include hypovolemic, acute tubular necrosis (ATN), hepatorenal syndrome (HRS), and miscellaneous types. The urinary biomarker Neutrophil Gelatinase-Associated Lipocalin (NGAL) may be useful for differential diagnosis, as it is an early-produced protein at the renal tubular level.

The objective of this study is to establish the correlation between urinary biomarker NGAL levels and the phenotype of acute kidney injury in cirrhotic patients with severe alcoholic hepatitis.

Patients / Materials and Methods: Descriptive, retrospective, and analytical study of patients with a diagnosis of severe alcoholic hepatitis with cirrhosis, acute kidney injury classified by AKI-ICA (Acute Kidney Injury Criteria-International Club of Ascites), and urinary NGAL values. Three groups were compared: one with hypovolemic AKI, the second group with ATN-type AKI, and a control group of 55 patients with non-alcoholic cirrhosis and ATN-type AKI. **Statistical analysis:** Data are presented as Mean $\pm$ SD or Median (IQR 25-75). Univariate analysis was conducted to compare AKI phenotypes (hypovolemic, ATN, and non-alcoholic etiology ATN with a cohort of 55 patients) with MELD and Child-Pugh as cofactors; significance was considered at ≤ 0.05 .

Results and Discussion: A total of 102 patients were included with an average age of 45 (39.7-51) years; 93 (91.17%) were men and 9 (8.82%) were women. Cirrhosis was classified as Child-Pugh A: 4 (3.92%), B: 5 (4.9%), and C: 93 (91.17%). Severe Alcoholic Hepatitis had a MELD score of 32 (26-39) points, a modified Maddrey score of 58.9 (44.9-102.2) points, an ABIC (Age-Bilirubin-INR-Creatinine) score of 8.5 ± 1.4 points, and a Glasgow score of 9 (8-10) points. Acute kidney injury was present in 74.5% (n=76) of cases with the following AKI-ICA grades: 1A: 9 (8.82%), 1B: 9 (8.82%), 2: 17 (16.66%), and 3: 41 (40.19%). The phenotypes were: Hypovolemic AKI: 50 (65.78%), Acute Tubular Necrosis (ATN): 23 (30.26%), and Hepatorenal Syndrome: 3 (3.94%).

The mean NGAL levels for the acute kidney injury phenotypes were hypovolemic 79.64 ± 61.73 , ATN 857.79 ± 914.95 , and non-alcoholic etiology ATN 743.09 ± 971.39 . Significant differences were found between groups F(74,1)=30.54 $p \leq .001$; comparisons between groups were important for hypovolemic acute kidney injury vs. ATN $p \leq .001$; hypovolemic acute kidney injury vs. non-alcoholic ATN $p \leq .001$, and not significant between ATN groups $p = 0.806$ (Figure 1).

Conclusions: There is a relationship between urinary biomarker NGAL values and the hypovolemic acute kidney injury phenotype compared to ATN in cirrhotic patients with severe alcoholic hepatitis and ATN of other etiologies; it is an early biomarker of renal damage useful for establishing severity and prognosis.