Table 1. Characterization of the liver visualization and Associations

Visualization n	A 69	B 29	C 3	*p-value*
Age (years)	51.19 (11.84)	53.10 (12.74)	43.33 (21.08)	0.401
Cause (%)				0.702
Primary Biliary Cholangitis	3 (4.3)	4 (13.8)	0 (0.0)	
Secondary Biliary Cholangitis	0 (0.0)	1 (3.4)	0 (0.0)	
Primary Sclerosing Cholangitis	2 (2.9)	0 (0.0)	0 (0.0)	
Criptogénic	1 (1.4)	0 (0.0)	0 (0.0)	
Autoimmune Hepatitis	14 (20.3)	10 (34.5)	1 (33.3)	
Hepatitis B	1 (1.4)	0 (0.0)	0 (0.0)	
Hepatitis C	17 (24.6)	5 (17.2)	0 (0.0)	
NAFLD	14 (20.3)	6 (20.7)	1 (33.3)	
Alcoholic Cirrhosis	17 (24.6)	3 (10.3)	1 (33.3)	
Ascites (%)				0.238
Absent	50 (72.5)	18 (62.1)	1 (33.3)	
Mild	10 (14.5)	4 (13.8)	2 (66.7)	
Moderate	5 (7.2)	4 (13.8)	0 (0.0)	
Severe	4 (5.8)	3 (10.3)	0 (0.0)	
Male Gender(%)	27 (39.1)	13 (44.8)	1 (33.3)	0.843
BMI (kg/m^2)	27.80 (4.56)	29.70 (5.96)	28.80 (7.63)	0.240

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P- 75 COMPARISON OF EUS-GUIDED COIL PLUS CYANOACRYLATE VS CONVENTIONAL CYANOACRYLATE TECHNIQUE IN THE MANAGEMENT OF ACUTE GASTRIC VARICEAL BLEEDING. WHICH ONE IS BETTER?

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Introduction and Objectives: Gastric varices affect approximately 20% of patients with portal hypertension; bleeding appears in 50-80%, with a mortality of 45%. There are two therapeutic options, cyanoacrylate and TIPS. The latter, due to its complexity, is limited. Cyanoacrylate is a more accessible technique, which can be performed conventionally by upper endoscopy (EGD) with direct visualization of the varices or guided by endoscopic ultrasound (EUS). This study aimed to compare the EUS-guided coil plus cyanoacrylate vs. the conventional technique of injection of cyanoacrylate in the management of acute gastric variceal bleeding.

Materials and Methods: Twenty-three cases of acute gastric variceal bleeding that received cyanoacrylate either by EUS-guided or conventional technique due to active or recent bleeding were analyzed, assessing their ability to stop it and the presence of bleeding at the same admission.

Results: Two groups were similar; 10 patients were male and 13 female. The type of gastric varices found was GOV1 in 12 patients (52.1%), GOV2 in 8 patients (34.7%) and in 3 patients (13.2%) both types were documented. At the time of EGD, 21.7% had active bleeding and bleeding was successfully controlled in all patients. There was one case of re-bleeding in the group of conventional cyanoacrylate technique that was controlled with EUS-guided embolization. The average number of injections was lower with EUS-guided therapy.

Conclusions: Cyanoacrylate is essential in the approach to acute bleeding from gastric varices. The EUS method seems to be safer. However, it requires training in the EUS, in addition to being more expensive. In bleeding without being able to visualize gastric varices veins by direct visualization, the EUS is the best option. Any endoscopy unit that handles digestive bleeding requires personnel and equipment trained to have both techniques.

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P- 76 ELEVATED FIBROSIS LEVEL IN PATIENTS COINFECTED WITH HEPATITIS AND COVID-19 DURING A LONGITUDINAL STUDY

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Introduction and Objectives: Altered biochemical and hematological markers have been associated with the aggravation of covid-19. There is limited information on the evaluation of the degree of liver injury, especially fibrosis, in infected patients who already have a history of liver injury. This study aimed to evaluate the level of fibrosis in patients coinfected with hepatitis and covid-19 during a one-year follow-up.

Materials and Methods: This is a longitudinal observational study. Two hundred and thirty individuals were recruited for a period of 12 months during the years 2020 to 2021. Blood was collected for hematological and biochemical tests for fibrosis calculation by using APRI index. Nasal and oropharyngeal swab samples were submitted to RT-qPCR test for detection of SARS-CoV-2 RNA.

Results: Mean age of the population was 48 years (± 17.09; 11-90) and half of them were women (115/230). Among the study participants, 40% (90/230) had hepatitis, and of this group, 14% (13/90) had covid-19. Compared to the group without hepatitis (140), 27% (39/140) had only covid-19 and high fibrosis grade (FIB-4) presented as a risk factor for this group. Notably, during the longitudinal study, it was noticed that there was an elevation in the degree of fibrosis among the coinfected patients when compared to the other groups. At the beginning of follow-up and during the acute phase of SARS-CoV-2 infection, coinfected patients presented a low grade of fibrosis (F0); after one year, and in a post-COVID setting, a high grade of fibrosis (F4) was observed in this group. The increase in fibrosis grade was not observed among monoinfected COVID-19 or hepatitis groups.

Conclusions: We observed an increased level of fibrosis among COVID-19 patients with liver disease as a post-covid condition in this group, which may represent an impact of SARS-CoV-2 infection in patients with a history of liver injury.

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P- 77 EPIGENOME OF PATIENTS WITH LIVER FIBROSIS, WITH SUSTAINED VIRAL RESPONSE TO HCV IN LIVER BIOPSY AND LIQUID BIOPSY REVEALS THE ASSOCIATION OF DNA METHYLATION AND miRNA EXPRESSION WITH THE DEGREE OF SEVERITY

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Introduction and Objectives: It has been shown that DNA methylation patterns and miRNA levels are effective markers for distinguishing different stages of liver fibrosis in European patients. A liquid biopsy allows the evaluation of ccfDNA methylation levels from hepatocytes damaged by necrosis/apoptosis, releasing degraded genomic DNA into the circulatory system, which reflects the gene changes present in hepatocytes. This study aimed to evaluate the potential association of specific miRNAs and the percentage of DNA methylation of genes linked with fibrosis in liver tissue and liquid biopsy from MEXICAN patients with various degrees of liver fibrosis and its severity.

Materials and Methods: Transjugular liver biopsies and liquid biopsies were collected from 23 patients with sustained viral response to HCV and residual fibrosis. The percentage of methylation in CpG islands of PPARα, gamma and δ gene promoters, as well as TGFβ1 and PDGFα, will be determined by pyrosequencing in DNA extracted from the liver and ccfDNA. Fibrosis was stratified according to Metavir. miR-21, miR-34, miR-122, miR181b, miR192, and miR-200a/b expression was evaluated.

Results: Higher methylation percentages were detected in antifibrotic gene promoters (PPARα and gamma) in patients with more severe degrees of fibrosis (F4), both in tissue and in liquid biopsy. TGFβ1 and PDGFα, profibrogenic genes, showed significant hypomethylation in their promoter regions, indicating hyperactivation. In addition, the overexpression of miRNAs evaluated was associated with the degree of fibrosis and severity.

Conclusions: Epigenetic mechanisms (DNA methylation and microRNA expression) regulate the expression of multiple genes and their measurement can be a biomarker associated with the degree of fibrosis. Liquid biopsy is an effective and accessible method for evaluating the degree of fibrosis in Mexican subjects and for monitoring clinical protocols.

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P- 78 DIETHYINITROSAMINE AND 2-ACETYLAMINOFLUORENE CHRONIC ADMINISTRATION LEADS TO BIOCHEMICAL, HISTOLOGIC AND GENETIC CHANGES RELATED TO HEPATOCELLULAR CARCINOMA IN WISTAR RATS

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Introduction and Objectives: Hepatocellular carcinoma (HCC) is one of the neoplasms with the highest mortality worldwide. The causes of the development of HCC have been related to hepatitis B virus and exposure to aflatoxin B1; however, chronic alcohol use, nonalcoholic fatty liver disease, and hepatitis C virus infection are the most important risk factors for developing HCC. The establishment of animal models of HCC is crucial for both basic and translational studies of hepatocellular carcinoma and is a valuable tool to identify alterations during the progression of the disease. This study aimed to analyze the biochemical, histological, and gene expression alterations produced in a model of chemical hepatocarcinogenesis by the chronic administration of diethylnitrosamine (DEN) and 2-acetylaminofluorene (2-AAF) in Wistar rats.

Materials and Methods: Twelve Wistar rats weighing 180 to 200 g were divided into control and damage groups: rats were treated with DEN (50 mg/kg/wk) i.p and an intragastric dose of 2-AAF (25 mg/kg/wk) for 18 weeks. Serum clinical biochemistry was performed on VITROS Chemistry System 350® equipment. Masson's trichrome and Hematoxylin-Eosin stains were performed on the liver tissue. Relative gene expression was performed by RT-qPCR in LightCycler®96.

Results: The damage group had significant increases in total cholesterol, HDL-C, AST, ALT, ALKP, and GGT. Furthermore, histological analysis showed the loss of normal liver architecture with nuclear pleomorphism in the hepatocytes, atypical mitosis, and fibrous septa distributed between portal triads and collagen fibers through the hepatic sinusoids. The expression of *TGFb1* was significantly increased ($p<0.05$); on the contrary, *ALB*, *CAT* and, *PPARα* were downregulated ($P<0.05$), *CPT1A* was downregulated too but without significance.

Conclusions: Chronic administration of DEN and 2-AAF induces characteristic alterations of hepatocellular carcinoma in Wistar rats. The uncontrolled proliferation of malignant cells requires a constant supply of energy and macromolecules. In this work, cancer cells reprogrammed their fatty acid oxidation pathway by downregulation of *PPARα* and *CPT1A*.

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P- 79 LIVER TRANSPLANTATION FOR HEPATOCELLULAR, LOOKING FOR THE BETTER SELECTION CRITERIA. RESULTS FROM THE URUGUAYAN LIVER TRANSPLANT PROGRAM

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Introduction and Objectives: Liver transplantation (LT) is an established therapeutic in hepatocellular carcinoma (HCC). Since 90' Milan's criteria have been the gold standard for the selection of the best candidate. In the last decade, new expanded criteria have been developed, like UCSF, Up to 7 and AFP Model, with the purpose of achieving a better selection of liver transplant candidates. This study aimed to describe the results of LT for HCC in our center, evaluate different selection criteria, and assess survival.