Table. Association between TSH and NAFLD/MAFLD.

Characteristic	NAFLD				MAFLD			
	Univariate OR (IC 95%)	p	Multivariate OR(IC 95%)	p	Univariate OR (IC 95%)	p	Multivariate OR (IC 95%)	p
Male	2.1 (1.8-2.4)	**			1.5 (1.2-1.82)	**		
MetS	5.1 (4.2-6.1)	**	1.6 (1.2-2.1)	**	3.1 (2.5-3.8)	**	1.6 (1.2-2.1)	**
TSH >4.5	1.2 (0.9-1.5)	0.11			1.3 (0.9-1.8)	0.09		
TSH >2.5	1.1 (1.0-1.3)	0.01			1.2 (1.0-1.4)	0.03		
TSH >3.1	1.2 (1.0-1.4)	0.002			1.2 (1.0-1.5)	0.01		
% fat >29.8	2.2 (1.9-2.6)	**	2.2 (1.6-2.9)	**	1.8 (1.5-2.1)	**	2.0 (1.4-2.8)	**

** p≤0.001; NAFLD non-alcoholic fatty liver disease; MAFLD metabolic dysfunction-associated fatty liver disease; MetS metabolic syndrome; TSH thyroid stimulating hormone.

Prevalence of high-risk non-alcoholic steatohepatitis according to the fast® index in a group of diabetic patients

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Introduction and Objectives: Diabetes is a high-risk condition for the progression of metabolic fatty liver disease (MAFLD). The FAST index combines the result of transition elastography (Fibroscan®) and AST levels and is used to predict the risk of suffering from non-alcoholic steatohepatitis (NASH) with a high risk of progression (NAS >4, F>2). This study aimed to know what proportion of diabetic patients is at risk of suffering from high-risk NASH according to the FAST® index.

Materials and Methods: Observational, transversal study to estimate prevalence. Diabetic patients who agreed to perform Fibroscan® and liver biochemical profile were included, and the FAST® index was calculated (<0.35 without risk; ≤ 0.35 to <0.67 indeterminate; ≥ 0.67 high-risk NASH). Descriptive statistics were used.

Results: One hundred fifty diabetic patients were included; 106 (70.7%) women; mean age 56.5±10.5 years. According to the steatosis degree by controlled attenuation parameter (CAP): S0=71(47.3%), S1=14(9.3%), S2=29(19.3%), S3=36(24%). According to the fibrosis degree (KPa): F0=82(54.7%), F1=4(2.7%), F2=8(5.3%), F3=9(6.0%), F4=47(31.3%). According to the FAST index: without risk= 96 (64%), indeterminate= 24 (16.0%), and with high risk= 30 (20%). There was no correlation between the HbA1c levels, diabetes evolution, obesity degree, or the presence of dyslipidemia.

Conclusions: The NASH high-risk progression's prevalence is high in diabetic patients; The factors that determine this risk in this population are still not clear, but timely detection strategies are required to efficiently identify this subgroup of patients. The FAST index is a relatively accessible tool that, due to its non-invasive nature, could be an alternative to liver biopsy for decision-making when starting specific therapy with action at histological liver changes in NASH.

Manifestations of SARS-COV-2 in patients with chronic liver disease

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Introduction and Objectives: This study aimed to analyze the degree of severity of SARS-CoV-2 infection in patients with the previous chronic liver disease through clinical, laboratory and histological variables.

Materials and Methods: From November 2021 to July 2021, at the Valentín Gómez Farías Hospital, a Gastroenterology service, 70 patients were treated with prior informed consent and endorsed by the ethics committee. For this study, 51 individuals with chronic liver disease and diagnosis of SARS-CoV-2 were included: 25 with steatohepatitis and 26 with liver cirrhosis. The following findings were observed:

Results: Histological findings:
• Micro vesicular steatosis.
• Mild mortal and lobular inflammatory activity.
• High viral load in the vascular endothelium (48 to 53%) and cytopathic effect of the SARS-CoV-2 virus.
• Ischemia due to hypoperfusion mainly due to myocardial injury.
• Immune hyperactivation.
• Drug-reactive liver injury.
• Apoptosis

Discussion: The COVID-19 pandemic is more severe in vulnerable patients, mainly older adults, male gender and comorbidities such as hypertension, diabetes, nephropathy, heart disease, lung disease, immunosuppression and patients with liver disease. Of these, 60% have severe symptoms and a mortality of 34%.

Conclusions: COVID-19 is the leading cause of death in Mexico. High-risk entities in this viremia are of great global prevalence. Steatohepatitis (NASH) and liver cirrhosis predispose high mortality and complications, possibly evidenced by these clinical evaluations and hepatic laboratory tests.

Table 1. Demographic, biochemical and symptomatology characteristics of the two groups

Previous pathologies	Steatohepatitis	Liver cirrhosis
Age	55.64	60,84
Gender	72% women - 28% men	42% women – 58% men
BMI	30.76	27.84
Comorbidities		
Overweight/obesity	100%	100%
DM 2	31%	20%
Alcoholism	0%	27%
Autoimmune disease	0%	4%
Laboratory		
AST	42.24	56.76
ALT	50.25	69.90
DHL	308.2	315.6
Platelets	170	100.38
Ferritin	496.24	592.5
D-dimer	530.54	1,064
Lymphocytes	35.2	29.96
ESR	32.32	30.06
PCR	49	47.03
Oxygen saturation	85.24	85.69
Clinic:		
Cough	16 (64%)	14 (54%)

(*continued*)

(*Continued*)

Previous pathologies	Steatohepatitis	Liver cirrhosis
Dyspnea	13 (52%)	12 (46%)
Pneumonia	5 (20%)	8 (32%)
Asthenia	6 (24%)	6 (24%)
Fever	2 (8%)	13 (52%)
Headache	3 (12%)	8 (31%)
Anosmia	1 (4%)	1 (4%)
Shivers	1 (4%)	1 (4%)
Arthralgia	3 (12%)	2 (8%)
Diarrhea	1 (4%)	2 (8%)

Pilot study: management with pentoxifylline in patients with chronic liver disease and COVID-19

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Introduction and Objectives: This study aimed to improve the response to adjuvant treatment with pentoxifylline in patients with SARS-CoV-2 and previous chronic liver disease.

Materials and Methods: In the ISSSTE hospital of Zapopan for eight months, 51 patients with moderate to severe SARS-CoV-2 and chronic liver disease, 26 with cirrhosis and 25 with steatohepatitis were evaluated, with prior informed consent and endorsed by the ethics committee. They were administered pentoxifylline 400 mg for 28 days, in addition to supportive measures such as paracetamol 750 mg, celecoxib 100 mg, or anticoagulants (enoxaparin) in patients with D-dimer > 600 mg/dL and supplemental oxygen in patients with saturation < 90. Clinical, laboratory and mortality variables were analyzed. The trial was approved by the research ethics committee, and informed consent was obtained.

Results: They were patients with Covid-19 plus cirrhosis and steatohepatitis. They survived 100%, after 28 days of driving, in addition to avoiding admission to intensive care.

Discussion: Pentoxifylline is a methylxanthine with antioxidant, hemorheological, anti-inflammatory and immunomodulatory properties since it inhibits NF-KB (via JAK/STAT and 1KB), pro-inflammatory cytokines, phosphodiesterase, in addition to stimulating anti-inflammatory cytokines, interferon-gamma, growth factors, TGF beta and granulocyte growth factor. Also, antiviral, as in Japanese encephalitis virus, vaccine virus, Rotavirus, HPV, respiratory syncytial virus, HIV, HCV, etc.

Conclusions: This viremia is severe in vulnerable groups, particularly liver diseases. It is inferred that Pentoxifylline may be alternative management, as manifested in this group of patients who managed to survive. So, we suggest multicenter and randomized studies to know their real benefit.

Declaration of interest: The authors declare no potential conflicts of interest.

Table 1. Demographic, biochemical and symptomatology characteristics of the two groups

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(*Continued*)

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Shivers	1 (4%)	1 (4%)
Arthralgia	3 (12%)	2 (8%)
Diarrhea	1 (4%)	2 (8%)

To present a clinical case of a 52-year-old female patient with a diagnosis of pyogenic liver abscesses

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Introduction and Objectives: a case of pyogenic abscesses is presented

Case Summary: 52 years old woman begins her condition with pain in the right hypochondrium, with an intensity 3/10, which increases with inspiration. She also refers to pain in the epigastrium, of postprandial onset, exacerbated by diet. Upon examination, she found the patient to be calm, cooperative, and well-oriented in her three neurological spheres, norm reflexes pupils, and oral mucosa well hydrated. Cylindrical neck, no lymph nodes, cardiopulmonary without compromise. Globose abdomen at the expense of panniculus adiposus, peristalsis present, pain on superficial and deep palpation in the right hypochondrium. Whole limbs.

Results: Treatment was started with metronidazole 500mg IV every 8 hours and ceftriaxone 1g IV every 12 hours for 28 days. The patient shows decreased pain in the right hypochondrium and clinical improvement, so it is decided to discharge her at the end of the month.

Discussion: Starting treatment in a timely manner in the patient reduces the number of complications such as the acute abdomen, occlusion of the hepatic veins, and occlusion of the inferior vena cava.

Conclusion: Starting early antibiotic therapy allows us to improve the prognosis of our patients with pyogenic liver abscesses, reducing morbidity and mortality.

Declaration of interest: The authors declare no potential conflicts of interest