

including gastrointestinal bleeding. Observing that with this number of patients, there is a great implication in mortality and in the number of days of hospital stay.

Conclusions: It was possible to characterize cardiac function alterations in patients with a diagnosis of decompensated chronic liver failure, being more affected patients with arterial hypertension, etiology attributable to alcoholism, Child-Pugh C, MELD of > 27 points and MELD-NA of > 18 points and mainly CLIF 1 and PSAP of 31. It is expected to increase the number of patients to obtain greater clinical relevance.

The authors declare that there is no conflict of interest.

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EFFICACY AND SAFETY OF TERLIPRESSIN INFUSION VS BOLUS TREATMENT IN DIGESTIVE BLEEDING OF VARICEAL ORIGIN AT THE PUEBLA SPECIALTY HOSPITAL, PRELIMINARY RESULTS

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Introduction and Objectives: Digestive bleeding of variceal origin represents an emergency medical event, with a mortality rate close to 20% and drug treatment is one of the pillars of management. In our environment and according to international recommendations, terlipressin administered in boluses is the treatment of choice for this entity, with a high percentage of adverse effects related to its use, so it is relevant to find other strategies in its use, but without reducing its use effectiveness. Some studies suggest that the use of terlipressin by continuous infusion could represent a more effective or comparable strategy for the control of bleeding, a lower rate of adverse effects and a lower risk of rebleeding, so the objective of this study is to compare the efficacy and safety of terlipressin in intermittent dose vs. infusion for acute bleeding of variceal origin in patients with portal hypertension.

Material and methods: this is a randomized, open, comparative and prospective study that included adult patients with a diagnosis of portal hypertension of any origin, with manifest gastrointestinal bleeding, treated at the Puebla Specialty Hospital since March 1, 2021, who were randomly administered terlipressin by infusion and boluses. Study variables: treatment failure, adverse effects, days of hospital stay and transfusion requirement. The protocol was approved by the local committee and conbioethics 21-CEI-002-20180731, all patients participated with informed consent. Results were analyzed with frequency measures, Fisher's exact test was used to demonstrate hypotheses, and Student's t-test was used for unrelated normal distribution variables.

Results: Up to now, 10 patients have been admitted to the study, in which no significant differences have been obtained in the study variables; however, in the bolus terlipressin group, three of the five patients have presented adverse effects, unlike the infusion terlipressin group in which they have not been presented.

Discussion: At the moment, a total of 10 patients has demonstrated comparable effectiveness in both groups; however, in the bolus group, 60% of the patients have presented adverse effects that have led to the change of vasoactive drug, unlike the infusion group where there have been no adverse effects, however, no significant differences have been found between both groups, which is explained by the small number of patients at the moment.

Conclusions: We consider that a larger number of patients is required to demonstrate our hypothesis.

The authors declare that there is no conflict of interest.

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DIABETES AS A CAUSE OF DECOMPENSATION IN HEPATIC CIRRHOSIS

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Introduction and objectives: Cirrhosis and diabetes mellitus are two chronic diseases with a significant impact on quality of life glucose intolerance has been observed in about 80% of patients with cirrhosis, 30-60% of patients with advanced cirrhosis develop diabetes. The development of diabetes as a complication of cirrhosis is referred to as hepatogenic diabetes and type 2 diabetes which the patient develops prior to the presence of cirrhosis. Hepatogenic diabetes, unlike diabetes mellitus, lacks a family history, less obesity, and a lower incidence of micro and macrovascular complications. Diabetes increases morbidity and mortality in patients with liver cirrhosis. The effect of type 2 diabetes and hepatogenic diabetes on the clinical outcome of cirrhosis has been evaluated in a few studies. Diabetes mellitus has been shown to be associated with an increased risk of complications and mortality. We consider it important to assess the association between the type of diabetes (hepatogenic and non-hepatogenic) with the presence of decompensation of cirrhosis (hemorrhage, hepatic encephalopathy, ascites, spontaneous bacterial peritonitis).

Material and methods: Ambispective, observational, descriptive study. Patients with a diagnosis of liver cirrhosis and diabetes from an outpatient clinic at the General Hospital of Ticomán and a review of the clinical record are included, collecting information on decompensation events (hemorrhage, hepatic encephalopathy, spontaneous bacterial peritonitis, ascites). Descriptive analysis is performed of the variables.

Results: Twenty-eight patients were included, of whom 15 suffer from type 2 diabetes mellitus and 13 of them were diagnosed with hepatogenic diabetes. Hepatogenic diabetes was diagnosed in 9 patients with impaired fasting glucose levels and in 4 patients with a glucose tolerance curve. In both groups, the male gender predominated (53.3 and 61% respectively), the main etiology of alcohol cirrhosis. In the group with hepatogenic diabetes, 76.92% presented some decompensation event, the most frequent being upper gastrointestinal bleeding in 80%. In this group of patients, they correspond to Child A 53.84%, Child B 38.46 and Child C 7.69%. 76.92% of the patients had a portal diameter greater than 10mm, 61.53% of the patients had large esophageal varices. In 53.84% of the patients, they were difficult to control, receiving treatment with a combination of insulin and metformin. On the other hand, in the group of patients with diabetes mellitus 69.23% presented decompensation, the most common hemorrhage in 46.66%, of these patients 33.3% Child A, 53.33% Child B and 13.33% Child C. 53.33% had a diameter of the portal greater than 10mm and 61.53 large esophageal varices. 33.33% of the patients were difficult to manage, being treated with combinations of insulin, metformin and linagliptin.

Discussion: The association of diabetes with decompensation events has been observed in some studies, Del Vecchio et al. found that diabetes was more frequent in subjects with decompensation than in those with compensated cirrhosis, with a prevalence of 63%. Targest et al. Diabetes is commonly associated with a significant increase in the development of spontaneous bacterial peritonitis. Goh et al. Diabetes is associated with an increased risk of mortality in patients with cirrhosis.

Conclusions: In our study, we observed that decompensation events were more common in the group of patients with hepatogenic

cirrhosis, being the main gastrointestinal bleeding, in addition to presenting a larger diameter of the portal vein on ultrasound and a higher percentage of large esophageal varices. And we observed this group of patients presented difficult management of glucose levels being treated with combinations of insulin and metformin.

The authors declare that there is no conflict of interest.

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COMPLICATION ASSOCIATED WITH UPPER GASTROINTESTINAL BLEEDING AMONG MEXICAN PATIENTS WITH CIRRHOSIS

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Introduction and Objectives: Upper gastrointestinal bleeding is a common complication among cirrhotic patients and holds high mortality and morbidity; the most common cause is variceal hemorrhage. Nonetheless, non-variceal hemorrhage is also frequent; this study aims to determine the prevalence of upper gastrointestinal bleeding complications among Mexican patients with cirrhosis.

Methods: Retrospective, cross-sectional, an analytic study among patients with cirrhosis of all etiologies admitted to the Gastroenterology department of the Hospital General de Mexico "Dr. Eduardo Liceaga" with acute upper gastrointestinal bleeding of both etiologies (variceal and non-variceal hemorrhage) in the period comprised from January 2017 to May 2021. Complications associated with the bleeding events were evaluated. For statistical analysis, quantitative variables were described as mean and standard deviation for qualitative variables in frequencies and percentages.

Results: A total of 295 patients were included, 55.3% male, mean age was 54.6 ± 11.8 years, 16.27% patients were staged as Child A, 49.15% Child B y 34.57% Child C, with and an average MELD score of 16. Main cirrhosis etiology was alcohol-related liver disease in 39.7%, viral hepatitis 6.4%, NASH 5.8% and others 3.4%; however, in 44.7% of patients, we were not able to determine the etiology of liver disease. The main cause of gastrointestinal bleeding was variceal hemorrhage in 71.1% and 28.9% non-variceal. The shock was identified in 5.76% (17) of patients, 9 of them required vasopressors, hepatic encephalopathy was present in 42.71% (126), Ascites in 18.64% (55), jaundice in 16.94% (50), acute kidney injury in 31.52% (93), bacterial infections in 24.06% (71), four patients (1.35%) died. Complications related to gastrointestinal bleed according to disease severity are depicted in table 1.

Discussion and Conclusions: Complications associated with upper gastrointestinal bleeding among Mexican patients with cirrhosis are frequent. Encephalopathy is the most common (42.71%) followed by acute kidney injury (31.52%) preponderantly of high grade, patients with more advanced disease are more prone to present infections, mainly UTI and ascites. Therefore they must be monitored closely.

The authors declare that there is no conflict of interest.

COMPLICATION	CHILD A (N=48)	CHILD B (N=145)	CHILD C (N=102)
SHOCK %(N)	2.08% (1)	6.89% (10)	5.88% (6)
ENCEPHALOPATHY %(N)	20.8% (10)	34.44% (50)	64.7% (66)
ASCITES %(N)	8.3% (4)	16.55% (24)	26.47% (27)

(continued)

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COMPLICATION	CHILD A (N=48)	CHILD B (N=145)	CHILD C (N=102)
JAUNDICE %(N)	0% (0)	7.58% (11)	38.23% (39)
ACUTE KIDNEY INJURY %(N)	2.08% (1)	28.90% (42)	49.01% (50)
Grade 1a	0	0	0
Grade 1b	0	54.76% (23)	44% (22)
Grade 2	100% (1)	21.42% (9)	26% (13)
Grade 3	0	23.8% (10)	30% (15)
INFECTIONS %(N)	6.25% (3)	20% (29)	38.23% (39)
SBP	0	0	12.82% (5)
UTI	100% (3)	55.17% (16)	56.41% (22)
Pneumonia	0	17.24% (5)	23.07% (9)
Others	0	6.8% (2)	17.94% (7)
MORTALITY %(N)	0	2.06% (3)	0.98% (1)

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TRENDS OF CHRONIC LIVER DISEASES IN THE UNIVERSITY HOSPITAL, UANL FOR 25 YEARS. A SINGLE-CENTER EXPERIENCE

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Introduction and objectives: Liver cirrhosis is one of the main leading causes of death in Mexico. Some chronic liver diseases (CLD) are Alcoholic Liver Disease (ALD), Autoimmune Liver Disease (AILD), Hepatitis B (HBV), Hepatitis C (HCV), and Non-Alcoholic Steatohepatitis (NASH). In Mexico, ALD and HCV are the leading causes of CLD. Objective: To analyze the incidence of CLD in a liver unit (LU) over 25 years.

Methods and materials: Clinical records of patients who attended for the first time to LU, from January 1995 to December 2019 were reviewed. There were 2780 patients with CLD, and 2668 filled the inclusion criteria with available clinical records. The diagnosis of CLD was made according to international guidelines. Inclusion criteria: patients with CLD in their first visit, with or without cirrhosis. Exclusion criteria: acute liver disease, <18 years old. Patients were divided by etiology. This study was observational, descriptive and the sampling was carried out in a non-probabilistic and convenient way. Intervals of time were group A (G^A) 1995-2003, group B (G^B) 2004-2011 and group C (G^C) 2012-2019. A one-way ANOVA was used to determine the differences between these groups.

Results: A statistically significant difference was found in the AILD, ALD and NASH groups, as determined by a one-way ANOVA ($p=0.036$, $p=0.011$ and $p<0.00$). A Tukey post hoc test showed that AILD cases in GB were higher than GA ($p=0.029$). The same trend was observed in ALD cases, which also showed an increase between the GA and GC ($p=0.012$). For NASH cases, each period showed an increase ($p=0.005AB$, $p<0.001AC$, $p=0.013BC$). HCV and HBV showed no statistically significant changes (Figure).

Discussion: In Mexico, there is scarce information on the incidence of CLD. This study showed a higher NASH incidence (43%) than the previously reported (29%)¹ as well as prevalence (23%)² in cirrhotic patients. The incidence of HAI in this study was 17%, similar to a previous study of 16%¹ in cirrhotic. Previously reported prevalence was 7.3%² in cirrhotic patients. ALD incidence was 15%, previously reported in 23%¹, and a prevalence of 31%² in cirrhotic patients. HCV