



## Oral Presentations at The XVI National Congress of The Mexican Association of Hepatology

### VARICEAL VERSUS NON-VARICEAL ETIOLOGY OF GASTROINTESTINAL BLEEDING IN PATIENTS WITH CIRRHOSIS AND RELATED SECONDARY COMPLICATIONS

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**Introduction and Objectives:** Liver cirrhosis is a highly prevalent worldwide disease and in the last decade, there has been an increase of 13%. Patients with advanced liver disease are at higher risk of developing life-threatening decompensations; one of these main complications is the presence of upper gastrointestinal bleeding, representing a frequent cause of hospital admission and mortality. Broad knowledge of these complications is essential to improve the diagnostic and therapeutic approach in these patients.

**Objectives:** To compare the different complications related to upper gastrointestinal bleeding of variceal vs. non-variceal origin and the characteristics of these patients.

**Methods:** Case-control study conducted in a cohort. The cohort was made up of cirrhotic patients due to any etiology who were admitted for hospitalization at our unit in a period from January 2017 to May 2021; two groups were extracted, those with variceal bleeding formed the cases group and, those with non-variceal hemorrhage the control group and a comparison between groups was made using X2 or Fisher's exact test or Student's test accordingly to the type and distribution of each variable, considering significant a value of  $p < 0.01$

**Results:** A total of 294 cirrhotic patients with gastrointestinal bleeding were included, 169 men (57.5%); mean age  $54.6 \pm 11.9$  years; mean days of hospital stay  $2.19 \pm 2.74$ . Regarding the etiology of liver cirrhosis, the main etiology was alcohol in 39.7% (117), followed by viral etiology in 6.4% (18), NASH in 5.8% (17) and, less frequently due to autoimmune causes in 3.4% (10), however, up to 44.7% remained with indeterminate etiology. Regarding the origin of gastrointestinal bleeding, 209 (71.1%) were of variceal origin and 85 (28.9%) were of non-variceal origin. A total of 94 (32%) developed acute kidney injury (AKI), and only the variceal origin was related to a higher risk of developing AKI 57/209 vs. 37/85,  $p < 0.01$  (OR = 1.6; 95% CI: 1.2-2.2) but there was no difference regarding the etiology of gastrointestinal bleeding and development of other complications

such as encephalopathy, ascites, jaundice, infections, need a transfusion, severe hypovolemic shock, death. See table.

**Conclusions:** The etiology (variceal vs. non-variceal) of the gastrointestinal bleeding has no impact on the development of other complications in cirrhosis; therefore, therapeutic prophylaxis and surveillance strategies should be prioritized in the patient with cirrhosis, regardless of the origin of bleeding. The risk of AKI should always be considered and monitored when the origin of the bleeding is variceal since this study shows the closest relationship between these two complications.

The authors declare that there is no conflict of interest

The comparison regarding the development of additional complications in relation to variceal or non-variceal etiology in cirrhotic patients

Complication	Total n=294	Variceal bleeding n=209	No-variceal bleeding n=85	P
Acute kidney injury	94 (32.0)	57 (27.3)	37 (43.5)	<0.01
Hepatic encephalopathy, n (%)	128 (43.5)	86 (41.1)	42 (49.4)	0.19
Ascites, n (%)	55 (18.7)	36 (17.2)	19 (22.3)	0.31
Jaundice n (%)	51 (17.3)	32 (15.3)	19 (22.3)	0.14
Infections, n (%)	65 (22.1)	48 (23.0)	17 (20.0)	0.58
Need of transfusion, n (%)	138 (46.9)	99 (47.4)	39 (45.9)	0.82
Hypovolemic shock n (%)	17 (5.8)	13 (6.2)	4 (4.7)	0.78
Death, n (%)	4 (1.4)	3 (1.4)	1 (1.2)	1.0

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### CORRELATION BETWEEN SARCOPENIA AND HEPATIC ENCEPHALOPATHY IN PATIENTS WITH CIRRHOSIS

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**Introduction and Objectives:** Malnutrition is a frequent complication in patients with cirrhosis, associated with greater disease progression, complication rate, and mortality. Sarcopenia is one of the main indicators of malnutrition, characterized by a general decrease