

## P-22 UNCOVERING INSIGHTS ON ACUTE VARICEAL HEMORRHAGE: A CROSS-COUNTRY SURVEY STUDY ON THE MANAGEMENT OF UPPER GASTROINTESTINAL BLEEDING IN LATIN AMERICA

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**Introduction and Objectives:** Acute variceal hemorrhage (AVH) is a serious complication of portal hypertension and is associated with high mortality and high cost. Limited information exists regarding AVH management in Latin America (LATAM). This study aimed to gather data on AVH management and resource availability across LATAM. The goal was to bridge the knowledge gap, enhance medical attention, and optimize specialized care for patients with AVH in the region.

**Materials and Methods:** A survey was conducted using Microsoft Forms with recruitment via social media invitations and collaboration with local medical associations. It gathered data on demographics, clinical practices, and specialized resource availability. The LATAM countries were classified based on economic development (World Bank's classification system). Variables are described using percentages or medians and interquartile ranges and compared among socioeconomic regions using a chi-square test or analysis of variance as appropriate.

**Results:** In total, 798 respondents from 20 LATAM countries completed the survey. The median age was 39 years, with 80% attending specialists, 14% residents, and 6% fellows. Countries were represented by 6% high-income, 72% upper-middle income, and 21% lower-middle income populations. Gastroenterology (62%) was the predominant specialty, followed by internal medicine (23%), gastrointestinal endoscopy (18%), and hepatology (18%). Tertiary care centers accounted for 45% of the participants primary activities, followed by second-level care (30%) and private practice (21%). As for the existence of endoscopy suites, there were no differences between surveyed countries but their availability 24/7 remains higher in high income countries. The availability of vasoactive drugs correlated with economic development. The detailed findings are presented in Table 1.

**Conclusions:** In LATAM, the absence of standardized protocols, limited resources, and expertise pose challenges in AVH management. Enhancing access to specialized care and implementing standardized protocols is crucial to improve patient outcomes in the region.

Table 2 Most relevant answers to the survey, countries are divided according to their socioeconomic income according to The World Bank.

Question surveyed	Answer	High income (n=47)	Medium High income (n=552)	Medium Low income (n=152)	Puerto Rico (n=15)	p*
Availability of endoscopy unit	Yes	44 (94%)	505 (89%)	152 (94%)	15 (100%)	0.2
Availability of endoscopy service 24/7	Yes	36 (77%)	287 (51%)	104 (64%)	10 (67%)	<0.001
Routine correction of bile pre-endoscopic therapy	Yes	17 (36%)	210 (37%)	60 (37%)	7 (47%)	
Hemoglobin level threshold for indicating blood transfusion	7 g/dL	34 (72%)	473 (84%)	138 (85%)	13 (87%)	0.13
	8 g/dL	11 (23%)	72 (13%)	20 (13%)	2 (13%)	
	9 g/dL	1 (2.1%)	15 (2.7%)	1 (0.6%)	0 (0%)	
Routine platelet for endoscopic band ligation when lower than 50x10 <sup>9</sup> cells/L	Yes	15 (32%)	310 (55%)	96 (59%)	4 (27%)	0.01
	No	33 (70%)	242 (43%)	66 (41%)	11 (73%)	
Availability of vasoactive drugs (e.g. terlipressin, somatostatin, octreotide)	Yes	43 (91%)	443 (78%)	107 (66%)	15 (100%)	<0.001
Pharmacologic therapy before endoscopic therapy	Yes	30 (64%)	410 (73%)	108 (67%)	14 (93%)	0.003
Waiting time in hours in emergency department before endoscopic therapy	< 6 hours	18 (38%)	30 (5%)	21 (13%)	0 (0%)	
	6 - 12 hours	20 (43%)	241 (43%)	79 (49%)	8 (53%)	
	> 12 hours	8 (17%)	190 (34%)	55 (34%)	7 (47%)	

\* Chi square test of Pearson, Exact Fisher test

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## P- 23 HEPATOCELLULAR CARCINOMA IN CENTRAL AMERICA: EPIDEMIOLOGY OF A COSTA RICAN COHORT

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**Introduction and Objectives:** Hepatocellular carcinoma (HCC) is the fourth leading cause of cancer-related mortality worldwide and a major problem in Latin America. It is characterized by significant epidemiological heterogeneity, but most data come from resource-rich countries. This is the largest cohort to date reporting HCC characteristics and outcomes in Central America.

**Materials and Methods:** Retrospective analysis of a cohort of HCC diagnosed radiographically or histologically and analysis of daily practice from a specialized Costa Rican center.

**Results:** From 10/2018 to 03/2023, 200 patients with HCC were evaluated. The median age at diagnosis was 67 years and 61% were men. The most common etiologies were NAFLD, alcohol, viral hepatitis, and autoimmune hepatitis (63, 22, 5 HBV, 4 HCV, and 3%, respectively), 67% had arterial hypertension, and 60% DM2. Diagnosis was 55% incidental (53% ultrasonography and 2% CT/MRI), 45% during surveillance (40% US, 3.5% CT/MRI and 1.5% AFP increase with negative US) and 42% had a significant elevation of AFP (20 ug/L). Child-Pugh Score was 54, 33 and 6% for A, B and C respectively and 7% were non-cirrhotic (71% NAFLD). The modified BCLC staging system for HCC in cirrhotic liver was 3, 46, 17, 22, and 12% for stage 0, A, B, C, and D, respectively. Being diagnosed during surveillance was significantly associated with a curable BCLC stage (0 or A) (p=0.003) but not with better overall survival (p=0.18).

**Conclusions:** This study represents the largest cohort to date reporting HCC characteristics in Central America. Most HCCs are diagnosed incidentally and in a non-curable stage. Health policies should be directed based on the epidemiological factors identified in order to reduce the mortality of these patients.

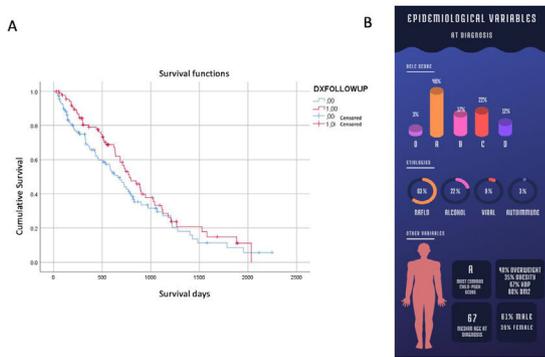


Figure 1: A. Kaplan Meier survival analysis of patients with HCC diagnosis incidentally (blue line) vs under surveillance (red line) (p=0.18). B. Epidemiological variables at diagnosis.

**Conclusions:** The present study updates the knowledge on the distribution of HCV genotypes in Argentina, showing a variation among cities. The frequency of G3a, at present the most difficult genotype to treat, could be rising. Surveillance studies with a larger number of samples would be necessary to confirm this hypothesis. VM frequencies confirm the existence of foci with high prevalence of certain genotypes in some cities, as previously reported. It is necessary to continue monitoring the circulation of HCV genotypes even after DAAs usage and their consequent impact on public health.

Genotype/City	2013-2017					2018-2023				
	RO	VM	COR	MDQ	RM	RO	VM	COR	MDQ	RM
1a	16,1 (53)	10,0 (8)	14,5 (8)	42,2 (19)	23,5 (4)	14,0 (19)	7,5 (7)	17,6 (58)	28,8 (19)	21,4 (6)
1b	21,9 (72)	2,5 (2)	38,2 (21)	8,9 (4)	17,65 (3)	23,5 (32)	1,1 (1)	27,1 (89)	24,2 (16)	21,4 (6)
2	36,2 (120)	87,5 (70)	36,4 (20)	20,0 (9)	23,5 (4)	33,1 (45)	90,3 (84)	42,5 (140)	12,1 (8)	25,0 (7)
3a	21,9 (72)	-	7,3 (4)	26,7 (12)	17,65 (3)	27,2 (37)	1,1 (1)	10,6 (35)	31,8 (21)	25,0 (7)
4	3,6 (12)	-	3,6 (2)	2,2 (1)	17,65 (3)	2,2 (3)	-	2,1 (7)	3,0 (2)	3,6 (1)
5	-	-	-	-	-	-	-	-	-	3,6 (1)
n Total	329	80	55	45	17	136	93	329	66	28

Table: Distribution of HCV genotypes.

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**P- 24 DISTRIBUTION OF HEPATITIS C GENOTYPES IN THE ARGENTINE POPULATION IN THE LAST TEN YEARS**

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**Introduction and Objectives:** Hepatitis C virus (HCV) consists of 7 genotypes and multiple subtypes. With the introduction of pan-genotypic direct-acting antivirals (DAAs), the utility of genotype as a prognostic factor for treatment tends to be less relevant. However, it is useful for those patients who require a second DAAs regimen. In Argentina, there are few reports on the prevalence of HCV genotypes, which indicate a varied and changing distribution in different cities. This study aimed to determine the frequency of HCV genotypes in different cities of Argentina in the last ten years.

**Materials and Methods:** Retrospective cross-sectional study of HCV genotypes performed by sequencing the 5' untranslated region of the viral genome in 1.178 samples assayed in the periods 2013-2017 and 2018-2023, taken in clinical analysis laboratories in different cities of Argentina: Rosario (RO, n=465), Villa María (VM, n=173), Mar del Plata (MDQ, N=111), Córdoba (COR, n=384) and Ramos Mejía (RM, n=45). Frequencies between periods were compared using Fisher's test.

**Results:** The frequencies of each genotype are presented in the Table. There is a variation among cities that is maintained in both periods, with the exception of MDQ. An increase in the frequency of G3 is observed in the 2018-2023 period, although it was not statistically significant.

**P- 25 METABOLIC, HISTOLOGICAL AND INFLAMMATORY BENEFITS IN A MURINE MODEL OF ALCOHOLIC STEATOHEPATITIS USING METHYL-GROUP DONOR SUPPLEMENTATION**

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**Introduction and Objectives:** Chronic alcohol consumption causes alcohol-related liver disease (ARLD) ranging from fatty liver, alcoholic hepatitis to cirrhosis, and HCH. Currently, the main treatment for alcohol-related liver disease is abstinence; then it becomes necessary to evaluate therapeutic alternatives. Micronutrients known as methyl group donors have the potential to influence the development and progression of several diseases, including ARLD. This study aimed to evaluate the effect of chronic alcohol consumption coupled with methyl-group donor supplementation on metabolic and histologic features and gene expression of proinflammatory cytokines in a murine model of ARLD.

**Materials and Methods:** 24 male C57BL/6J mice with an initial weight of 20-25g were divided into groups with a conventional diet (ND n=8); or alcohol-related liver-injury was induced with ad libitum consumption of a 20% ethanol-aqueous drink and a 45%-fat diet (OH n=8) for 18 weeks; or with ethanol drink and the diet high in fat for 10 weeks, plus 8 additional weeks of this diet plus methyl group donor orogastric supplementation -zinc sulfate, methionine, vitamin B12, folic acid, betaine and choline- (OH +METMIX n=8). Serum biochemical studies and hepatic and adipose histological analyzes were performed. In the liver, mRNA levels of IL6 and TNF $\alpha$  were quantified.

**Results:** Supplemented animals showed a decrease in body weight, epididymal fat and serum levels of cholesterol, HDL and LDL (p<0.05). Meanwhile, AST, ALT, TG and VLDL, as well as IL-6 and TNF-mRNA and the hormones insulin, leptin, glucagon and resistin showed a tendency to decrease in the METMIX group.

**Conclusions:** Treatment with methyl-group donors improves body weight, body composition, cholesterol, LDL and HDL concentrations exerting beneficial and protective effects even with continuous consumption of an ethanol-aqueous drink.

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