Prevalence of polypharmacy in patients with a diagnosis of liver cirrhosis treated in the Gastroenterology service of the La Raza National Medical Center

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Introduction and Objectives: The need for multiple drugs to treat the complications associated with liver cirrhosis, as well as its comorbidities, places patients with chronic liver disease at high risk of polypharmacy with the possible use of unnecessary drugs and drug interactions. We propose to evaluate the prevalence of polypharmacy in patients with liver cirrhosis in our unit.

Materials and Patients: In a descriptive, observational, retrospective study with the aim of evaluating men and women with a diagnosis of liver cirrhosis in follow-up by the gastroenterology service of the Hospital de Especialidades del CMN la Raza in the year 2023.

The prevalence of polypharmacy will be evaluated, taking as the definition established by the World Health Organization as the consumption of 5 or more drugs.

Drug interactions will be recorded and evaluated using the Lexicomp-online formulary tool, classifying them as X (said drug should be avoided), D (consider modification of therapy), C (requires therapy monitoring), B (no action required) A (no known interaction).

For qualitative variables, descriptive statistics will be used through measures of central tendency and measures of dispersion. To know the association between these variables, it will be evaluated using Pearson correlation and to know the level of association between variables, it will be evaluated with cross tables and Chi square. The analysis will be carried out through the SPSS25 program.

Results: A total of 100 patients were recruited, of which 35% were men and 65% were women, the average age was 57 years, the most frequent etiological entity associated with liver cirrhosis was MASLD, representing 45%, followed by 18% by primary biliary cholangitis and in third place chronic HCV infection with 13%. Among the most frequent comorbidities is type 2 diabetes (48%), followed by systemic arterial hypertension (32%), and hypothyroidism (18%). The classification of liver dysfunction found a predominance of Child Pugh B with 49%. The diagnosis of polypharmacy (use of more than 5 drugs) had a prevalence of 44%. The analysis of probable pharmacological interactions found a percentage of D and C interaction of 18% and 60%, with no X or A interactions reported.

Through Chi square analysis, no association was found between MASLD etiology and polypharmacy. By degree of liver dysfunction, an association was found between the Child Pugh C classification and polypharmacy with a P value of 0.002 and a relative risk of 6.25 (CI 1.73-25.27). The association between drug interactions D, and C were associated with polypharmacy with a statistically significant P with a RR of 9.1 and 9.7 respectively.

Conclusions: The prevalence of polypharmacy in our population was higher than that reported in the international literature, placing patients with liver cirrhosis at high risk of adverse effects and drug interactions, with up to 60% reported in our population with classification D. This should prompt a thorough review of the drugs consumed as well as close monitoring.

Ethical statement: This project has been carried out based on the ethical principles for medical research on human beings, in accordance with the Declaration of Helsinki of the World Medical Association, protecting the personal information of the participants in this research, protecting the information obtained through the clinical record as well as the results of the present study.

This observational, descriptive and retrospective study is classified as risk-free based on the Regulations of the General Health Law on research, so it does not require informed consent.

Declaration of interests: None.

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Age Mean (years)		Standard deviation	
57		12.04	
Gender	Count	N (%)	
Male	35	35%	
Female	65	65%	
Etiology			
Etiology	Count	N (%)	
Hepatitis C chronic infection	13	13%	
MASLD	45	45%	
Biliary primary colangitis	18	18%	
Alcohol abuse disorder	9	9%	
Hepatitis autoinmune	5	5%	
AIH-PBC overlap síndrome	6	6%	
Primary sclerosin colangitis	1	1%	
Cryptogenic	3	3%	
Comorbidities	Count	N (%)	
Type 2 Diabetes	48	48%	
Hypertension	32	32%	
Hypothyroidism	18	18%	
Chronic kidney disease	9	9%	
Liver dysfunction for Child Pugh			
	Count	N (%)	
Child Pugh A	36	36%	
Child Pugh B	49	49%	
Child Pugh C	15	15%	
MELD			
Mean		Standard deviation	
15		6.6	
Farmacology interactions			
Classification		N (%)	
D		18%	
C		60%	
B		2%	
Association with polypharmacy			
Variable	**RR**	**CI**	**P**
MASLD	0.744	0.3-1.65	0.46
Child Pugh A	0.22	0.88-0.56	0.001
Child Pugh B	1.48	0.67-3.29	0.325
Child Pugh C	6.6	1.73-25	0.002
Association with type D interactions			
Polifarmacia	9.1	2.4-30	0.001

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Acute Liver Failure Triggered by Idiosyncratic Drug-Induced Liver Injury Associated with Ibuprofen Consumption. Case Report.

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Introduction and Objectives: Drug-induced liver injury (DILI) refers to hepatic function alterations associated with drugs. The idiosyncratic form can progress from remission to acute liver failure (ALF).