prolonged-release pirfenidone (PR-PFD) plus standard of care for the regression of liver fibrosis and its effect on key epigenetic marks.

Patients / Materials and Methods: HCV patients who responded to direct-acting antivirals (DAAs) and had residual fibrosis received PR-PFD (1200 mg/day) for 12 months. Liver biopsies and serum samples were analyzed at the beginning and end of the treatment. Additionally, six non-fibrotic controls were included to compare the epigenetic marks.

Results and Discussion: 38 patients completed the 12-month treatment, and 28.94% showed a reduction of at least one fibrosis stage according to liver biopsies, while 57.57% experienced an improvement in fibrosis according to transient elastography. Levels of bilirubin, alkaline phosphatase, AST, INR, and APRI significantly decreased. Profibrogenic miRNAs (miR-34a, miR-21, miR-16, miR-181b, miR-200a, and miR-200b) showed a significant increase in advanced fibrosis compared to non-fibrotic controls. Notably, PR-PFD treatment restored the expression of miR-34a, miR-16, miR-192, miR-200a, and miR-122. In cell-free DNA (liquid biopsy), PDGFα showed hypermethylation in patients with mild fibrosis, while in liver tissue hypomethylation was present in non-fibrotic controls. In the circulating DNA of non-fibrotic controls, PPAR-δ was hypermethylated compared to mild and advanced fibrosis cohorts. Treatment with PR-PFD induced hypermethylation in three islets of TGFβ1, suggesting a decrease in the transcription of this profibrogenic cytokine.

Conclusions: These findings indicate, for the first time, that PR-PFD treatment could exert therapeutic effects in Hispanic patients with residual fibrosis by modulating miRNA expression and methylation of specific CpG sites.

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P-27 OBESITY AND LIVER STEATOSIS IN ADOLESCENTS AND YOUNG ADULTS - RELATED FACTORS AND THE IMPACT OF LIFESTYLE

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Conflict of interest: No

Introduction and Objectives: Obesity and lifestyle are factors associated with steatotic liver disease related to metabolic dysfunction (MASLD). *Objective:* To describe the frequency of obesity and MASLD in adolescents/young adults and related factors.

Patients / Materials and Methods: Cross-sectional study. Demographic, anthropometric and lifestyle data were assessed (self-completed questionnaire). All underwent liver elastography with CAP (Fibroscan® Touch 502, Echosens, Fr) to estimate the frequency of steatosis (CAP ≥ 248 DB/m) and significant fibrosis (E > 7.9 kPa). The related factors for obesity and steatosis were assessed by logistic regression analysis.

Results and Discussion: One hundred and twenty-three healthy individuals participated in the study (68.3% women, 19.5 ± 1.5 years). Pre-hypertension, overweight and obesity were identified in 13.3%, 16.3% and 10.6% respectively (62.8% were not satisfied with their weight). Alcohol consumption was 26.7% (2-4 drinks/week), higher in men. 6% had glycated hemoglobin ≥ 5.7% (Pre-diabetes) and 28% had hypercholesterolemia. Steatosis was identified in 21.1%, and no individual had significant fibrosis [median E = 4.4 (3.6 − 5.3) kPa]. The median daily time spent on the computer was 5 (3-8 hours), and 56% used the computer for more than 4 hours/day. The factors that were independently associated with obesity in these adolescents were pre-hypertension (OR 8.7: 95% CI 2.1-36.0, p=0.003) and time spent using a computer (OR 6.1: 1.09-34.9; p=0.039). Obesity (OR 71.4: 95%CI 7.0-725.5, p<0.001), pre-hypertension (OR 7.4: 95%CI 1.3-41.9, p=0.024) and male sex (OR 13.5: 95%CI 1.3-137.3, p=0.027) but not alcohol use was associated with the presence of hepatic steatosis.

Conclusions: The prevalence of obesity, pre-hypertension and hepatic steatosis in adolescents/young adults is high. Lifestyle changes, including better control of screen time, must be implemented urgently in this population to combat obesity and steatosis.

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P-28 CHARACTERIZATION OF CHRONIC LIVER DISEASE, CIRRHOSIS, AND HEPATOCELLULAR CARCINOMA PROGRESSION IN A COLOMBIAN HEALTH MAINTENANCE ORGANIZATION: A TEN-YEAR RETROSPECTIVE STUDY

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Conflict of interest: Yes, Roche employee as co-authors

Introduction and Objectives: Chronic liver disease (CLD), cirrhosis, and hepatocellular carcinoma (HCC) pose a significant global health burden. In Colombia, these conditions challenge the healthcare system, necessitating a thorough understanding of their progression and impact. This study aimed to evaluate the prevalence, progression, median survival time and transition rates of patients with CLD, cirrhosis, and HCC in a Colombian Health Maintenance Organization.

Patients / Materials and Methods: This retrospective cohort study was conducted from 2012 to 2022, identifying patients with CLD, cirrhosis, and HCC using ICD-10 codes from a claims database and electronic health records. The focus was on the cumulative 5- and 10-year survival rates of patients with cirrhosis and HCC.

Results and Discussion: The study included 33,315 CLD patients (median age: 49.1 years; 57.14% female), with the primary causes being fatty liver disease (82.98%) and chronic viral hepatitis (5.18%). Among these, 1,021 developed cirrhosis (median age: 61.45 years; 52.89% female), and 67 progressed to HCC (median age: 67.18 years; 50.75% male). The incidence rate was 165.03 per 10,000 patients. The probabilities of progression from CLD to cirrhosis at 5 and 10 years were 4% and 7%, respectively, whereas the probabilities of developing HCC from cirrhosis were 6% at 5 years and 20% at 10 years. The 5-year and 10-year cumulative survival rates for cirrhosis were 80% and 63%, respectively, whereas those for HCC were 34% and 23%, respectively.

Conclusions: This study provides a comprehensive overview of CLD in Colombia, identifying fatty liver disease as its primary etiology. It reveals the significant risks of disease progression and reduced