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**Introduction and Objectives:** Hereditary Hemorrhagic Telangiectasia (HHT) is an autosomal dominant vascular dysplasia affecting 1/5000 individuals. Epistaxis, mucocutaneous telangiectasias and vascular malformations affecting internal organs (brain, lungs, liver and digestive tract) are hallmarks of HHT. Though liver involvement occurs in 80% of patients, including abnormal portal-venous, arterio-portal, and arterio-venous shunts, overt clinic is only present in 8% and may present as secondary high-output cardiac failure (HOCF), portosystemic encephalopathy, noncirrhotic portal hypertension and/or bile duct ischemia. This study aimed to report a single HHT Reference Center experience in the antiangiogenic treatment with bevacizumab (anti VEGF-Vascular Endothelial Growth Factor) for treating adult HHT patients with HOCF due to severe liver disease.

**Materials and Methods:** Observational cohort study. Baseline clinical/analytical characteristics were recorded and echocardiographic values for cardiac index in L/min/m<sup>2</sup> and cardiac output in L/min (CI and CO) before and after bevacizumab treatment were compared when available with a paired signed rank test.

**Results:** Thirteen patients were included from July/2013-June/2022, nine were women and the median age was 68 [IQR: 53-71]. All of them with HOCF; eleven had edema/ascites and six also had refractory iron deficiency anemia. Regarding liver compromise: nine had hepatomegalia, all had diffuse telangiectasias, six portal-venous, ten arterio-venous and eight arterio-portal shunts, while only two had ischemic bile duct injury. Basal median CI was 4.1 [3.8-4.8] and CO was 7.5 [6.1-8.6] (n=11). Median Bevacizumab number of the received doses was 6 [4-6]. At least one post-treatment result during the first year of treatment was available in 8 patients with a median CI of 3.5 [3.1-4.3] (p<0.05) and CO of 6.2 [4.5-3.0] (p<0.05). Two patients received liver transplantation while on treatment.

**Conclusions:** These results supporting bevacizumab treatment in HHT patients with severe liver disease are in line with previous reports.

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#### P-19 SPLENIC IRON OVERLOAD IN PATIENTS WITH HEREDITARY HEMOCHROMATOSIS

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**Introduction and Objectives:** Hereditary hemochromatosis (HH) is a polygenic disease characterized by elevated transferrin saturation (TfS) due to progressive and systemic iron overload. T2\*-weighted magnetic resonance imaging (T2\*MRI) is useful for assessing hepatic and splenic iron overload (SpIO). Until now, SpIO in patients with HH has been controversial. This study aimed to evaluate splenic iron overload in HH patients.

**Materials and Methods:** A Retrospective analysis was made in 113 patients studied with T2\*MRI 1.5 Tesla, with phenotypic and liver

histologic criteria of HH, without other causes of iron overload. All of them had a hepatic iron overload. In order to evaluate differences between patients with SpIO (Group 1 - G1) or without (Group 2 - G2), age, sex, serum ferritin (SF), serum iron (SI), serum transferrin (Tf), TfS, HFE gen mutations, hepatomegaly, libido loss (LIB), cirrhosis by liver histology, oral glucose tolerance test (OGTT), diabetes (DM); cutaneous (CI), joints (JI) and cardiac involvement (CVI) were compared between both groups. Statistical analysis: median with IQ range 25-75% and Mann-Whitney test. P-value <0.05 was considered significant.

**Results:** By T2\*MRI, SpIO (G1) was observed in 53 cases (46.9%) and not detected (G2) in 60 (53.1%). Median age: G1, 47 years (39-60) vs. G2: 43 (30.5-53) (p=0.074); HFE mutations, G1: 20.75% vs. G2: 11.67% (p=0.14); SF>1000 ng/ml, G1: 35.85% vs. G2: 18.33% (p=0.029); hepatomegaly, G1: 67.92% vs. G2: 46.67% (p=0.018) and AI, G1: 33.96% vs. G2: 13.33% (p=0.009). Statistical differences were not observed when comparing sex, cirrhosis, SI, Tf, TfS, OGTT, DM, CI, CVI and LIB.

**Conclusions:** This study shows that nearly half of the patients with HH have splenic iron accumulation. This finding is more frequent in those with SF >1000 ng/dl, hepatomegaly and joint involvement. This preliminary data support to continue studying other polymorphisms that could be involved in HH and the impact of splenic iron overload on the disease.

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#### P-21 DOCOSAHEXAENOIC ACID AND ITS DERIVATIVE MARESIN1 IMPROVE CHRONIC LIVER DAMAGE ASSOCIATED WITH THE PROMOTION OF APOPTOSIS PATHWAYS AND LIVER REGENERATION IN A SPRAGUE-DAWLEY MODEL

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**Introduction and Objectives:** Liver fibrosis is a complex process characterized by excessive accumulation of extracellular matrix (ECM) associated with chronic injury inflammation and an alteration of liver architecture as a result of most types of chronic liver diseases such as cirrhosis, hepatocellular carcinoma and liver failure. The  $\omega$ -3 Docosahexaenoic (DHA) fatty acids and their derivative Maresin-1 (MaR1) have been shown to have pro-resolutive, anti-inflammatory, and hepatoprotective liver effects on acute models of liver study, but their role in apoptosis and liver regeneration remains to be elucidated. This study aimed to analyze the role of DHA+MaR1 in the prevention and restoration of liver fibrosis damage, enhancing a regenerative phenotype in an animal model of chronic liver damage.

**Materials and Methods:** Sprague-Dawley rats were inducing liver fibrosis by injections of diethylnitrosamine (DEN) 50mg/ml twice a week and treated with DHA with or without MaR1 (4ng/g daily) for ten weeks. Biochemical parameters, biopsy analysis, qRT-PCR (RIPK3, Bax, BCL-2 and P53), protein expression of Ki67, pBCL-2 and the apoptotic index by the terminal-deoxynucleotidyl transferase-mediated nick end-labeling (TUNEL) was assayed. All data were statistically analyzed by GraphPad Prism v9 software.

**Results:** DHA+MaR1 animals, levels of AST, ALT, and albumin were normalized compared to DEN alone. Inflammation and necrotic areas were reduced by DHA+MaR1 treatment, improving liver cytoarchitecture. Cell proliferation, evaluated as mitotic activity index, was increased in the MaR1 group. Upregulation of Ki67, P53, and Bax was observed in the DHA+MaR1 groups, while the expression of Bcl-2 and

RipK3 decreased. Also, the TUNEL assay shows that DHA and DHA +MaR1 promote apoptosis in hepatocytes.

**Conclusions:** Taken together, these results suggest that DHA +MaR1 improves the parameters of DEN-induced liver fibrosis, activating hepatocyte proliferation and apoptosis and restoring the damaged parenchyma. These results open the possibility of DHA + MaR1 as potential therapeutic agents in fibrosis and other liver pathologies.

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### P-23 TEST AND TREAT: PROFILE OF PATIENTS DIAGNOSED WITH HEPATITIS C IN THE PRISON SYSTEM OF PORTO ALEGRE, BRAZIL

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**Introduction and Objectives:** Hepatitis caused by the C virus (HCV) is a public health problem whose greatest challenge is access to diagnosis and treatment. The population deprived of liberty is considered a priority for approaches involving the disease. This study aimed to identify the prevalence of HCV among patients tested in prisons in Porto Alegre, Brazil and describe the diagnosed profile of the patients.

**Materials and Methods:** A cross-sectional study with a quantitative approach. Through the "test and treat" project, rapid testing for HCV and the treatment of diagnosed cases were carried out, providing specific pharmacotherapy, without face-to-face specialist medical consult, within 30 days in 5 prisons in Porto Alegre.

**Results:** 1272 tests were performed with a prevalence of 2.04% of HCV (table 1).

The "test and treat" also welcomed patients diagnosed at the entrance door of prisons providing treatment for the disease, totaling 44 patients diagnosed in these prisons. With the exception of 3 patients with non-reactive viral load, 24.4% of patients have already completed treatment, 36.6% of patients are currently undergoing treatment, 22% are awaiting test results or a change of antiretroviral regimen for HIV and 17.1 % went free from prison. As for the profile of patients, 81.8% are male. The age group with the highest prevalence of patients is 41 to 50 years old (33.3%). Regarding race/color, 41.9% of patients are black and 58.1% are white. Regarding drug use, 50% of patients reported using or had used injectable, inhaled substances and/or crack. The patient's APRI score was 0.6 (FO-F1) and FIB-4 was 1.28 (FO-F1).

**Conclusions:** This is an innovative action for the Population Deprived of Liberty, as it is the first time that patients with HCV have been treated in municipal prisons because of the particularities of the prison system.

**Funding:** This work was supported by an unrestricted grant provided by Gilead Sciences Brazil.

Table 1

Prison	total	Tests		Reagents			
		HCV/HBV	%performed	HCV+	% HCV reagents	HBV+	%HBV reagents
Presidio Feminino Madre Pelletier	315	314	99,7%	8	2,55%	3	0,96%
Instituto Psiquiátrico Forense Doutor Mauricio Cardoso	156	156	100,0%	2	1,28%	2	1,28%
IPF - Alta Progressiva	29	0	0,0%	0	0,00%	0	0,00%
Penitenciária Estadual de Porto Alegre	610	282	46,2%	12	4,26%	0	0,00%
Cadeia Pública de Porto Alegre	2651	487	18,4%	4	0,82%	1	0,21%
Instituto Penal Irmão Miguel Dario	130	33	25,4%	0	0,00%	0	0,00%
TOTAL	3891	1272	32,7	26	2,04%	6	0,47%

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### P- 24 RISK OF MULTIPLE DRUG INTERACTIONS POTENTIALLY LINKED TO SAFETY IN PATIENTS RECEIVING PANGENOTYPIC DIRECT-ACTING ANTIVIRALS FOR THE TREATMENT OF HEPATITIS C

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**Introduction and Objectives:** Previous studies have evaluated the risk of drug-drug interactions (DDI) in HCV patients receiving pangenotypic direct-acting antivirals (pDAA). This study aimed to describe the prevalence of the risk of potential multiple DDI (multi-DDI) and its clinical impact in patients treated with pDAAs.

**Materials and Methods:** A retrospective observational study from a Spanish database of 1.8 million inhabitants, including patients treated with Sofosbuvir/Velpatasvir [SOF/VEL] or Glecaprevir/Pibrentasvir [GLE/PIB] (2017- 2020). Demographics, comorbidities, comediations, and DDIs were evaluated. The severity and impact of the DDIs were evaluated using the University of Liverpool tool. Additionally, the ICD-9 coding system was used to identify the presence of suspected adverse drug reactions (SADR) during the treatment. An indirect indicator of effectiveness was evaluated (requirement of a new DAA in the six months after the end of the pDAA).

**Results: 1620 patients were included; 730 with SOF/VEL (median age: 55 y; 62% men; 37.8% F3/4) and 890 with GLE/PIB (53 y; 60% men; 28% F3/4). The most prescribed drugs were neurological (35.8%), digestive (24.1%) and cardiovascular (14.2%). 77.5% of patients received  $\geq 2$  comediations. The number of patients receiving  $\geq 2$  comediations at risk of multi-DDI with pDAAs was 123 (9.8%, 123/1256), 52 with SOF/VEL and 71 with GLE/PIB. Patients showing increased risk in comedication as a DDI outcome were 31% (22) with GLE/PIB and 11% (6) with SOF/VEL (p <0.001). The risk of decrease in pDAA with GLE/PIB was 32% (23) and with SOF/VEL 46% (24) (p=NS).**