Conflict of interest: No

Introduction and Objectives: Primary biliary cholangitis (PBC) is a chronic, progressive, autoimmune liver disease characterized by the destruction of the small bile ducts within the liver. Ursodeoxycholic acid (UDCA) is the first-line treatment for PBC, shown to improve liver biochemistry and delay disease progression. All biochemical criteria for response recommend a threshold of alkaline phosphatase (ALP) that is higher than the ULN, because those scores have shown a lower disease progression, liver related events and overall mortality. The impact of achieving normalization of ALP, compared to conventional biochemical scores is unknown, but it's relevance, particularly in countries without universal access to liver transplantation could be significant.

Patients / Materials and Methods: This is a single center, retrospective, propensity score-matched cohort study, which included all patients with PBC and chronic liver disease, confirmed by liver biopsy that were followed by the hepatology clinic from January 1st, 2015 to March 1st 2024 under treatment with UDCA. All demographic, clinical and biochemical characteristics were obtained. A biochemical response was defined according to the Toronto criterion, with an ALP <1.67 x ULN after 2 years of UDCA therapy. Patients were subdivided into two groups, either by fulfilling these criteria or by achieving normalization of ALP <120 IU/L). The primary outcome was mortality due to a liver related event (LRE) a composite that included variceal hemorrhage (VH), spontaneous bacterial peritonitis (SBP), hepatic encephalopathy (HE), ascites, acute kidney injury (AKI), hepatorenal syndrome-AKI (HRS-AKI), and ACLF. the secondary outcomes were development of each independent variable of the definition of LRE.

Results and Discussion: Out of a total pool of 132 patients, 32 fulfilled conventional Toronto criteria without achieving normalization of ALP, and 30 had a ALP level below 120 IU/L. The predominant gender was female in both groups (95% and 96%) with a median of 57 years for both groups. The prevalence of systemic autoimmune disease was similar between both groups, (55 and 57%, respectively). Mortality due to LRE in the Toronto criteria group was 14/32 (43%), compared to 4/30 (13%) in the normalization group, a difference which was statistically significant (OR 5.05, 95% CI [1.429, 17.882], p=0.005.). The development of HE (OR 5.47, 95% CI [1.075, 27.916], p=0.02) and VH (OR 4.71, 95% CI [1.165, 19.083], p=0.01), was greater in the Toronto criteria group, compared to the normalization group. These variables remained statistically significant after multivariate regression analysis (adjusted for age, gender and autoimmune systemic diseases).

No statistically significant differences were found for AKI, HRS-AKI, ACLF, ascites or SBP.

Conclusions: Among patients with PBC that receive initial therapy with UDCA, a normalization of ALP after two years, compared to conventional biochemical response criteria (Toronto criteria), leads to lower liver related mortality and development of VH and EH. More prospective studies are needed.

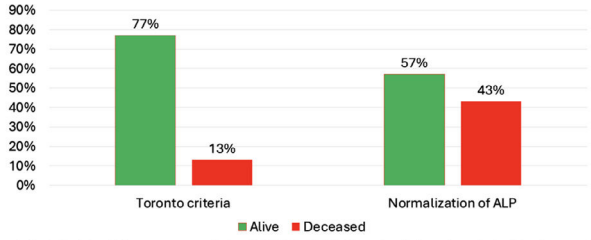

Figure 1. *Mortality during follow up among patients with PBC that fulfilled Toronto criteria vs those that achieved a normal ALP.* Mortality due to LRE in the Toronto criteria group was 14/32 (43%), compared to 4/30 (13%) in the normalization group, a difference which was **statistically significant (OR 5.05, 95% CI [1.429 , 17.882], p=0.005.)**

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P-92 CAN HONEY AND APICULTURAL DERIVATIVES HELP IN FATTY LIVER DISEASE?

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Conflict of interest: No

Introduction and Objectives: The increase in caloric intake has led to an obesity epidemic both in Chile and worldwide. This trend has contributed to a rise in the prevalence of metabolic diseases, such as insulin resistance, type 2 diabetes mellitus, and non-alcoholic fatty liver disease (NAFLD). NAFLD affects approximately 25% of the global population and can progress to severe stages such as non-alcoholic steatohepatitis (NASH), fibrosis, cirrhosis, and hepatocellular carcinoma. Currently, there is no formal protocol for the pharmacological treatment of NAFLD, making prevention and reversal crucial for improving quality of life and reducing public health costs. Honey and bee pollen, rich in antioxidants and known for their therapeutic properties, could offer a non-pharmaceutic alternative to manage this condition. *Objective:* This study aims to evaluate Chilean endemic honeys and bee pollens form Ulmo and Quillay, to determine their hepatoprotective effect in an in vitro cellular model.

Patients / Materials and Methods: For the cell assays, the HUH7 cell line was used. The compound AAPH (2,2′-azobis(2-amidinopropane) dihydrochloride) was employed as a peroxyl radical generator to induce cellular damage. The hepatoprotective effect was evaluated by inducing cellular damage with AAPH (0.2 mM for 24 hours), followed by the addition of phenolic extracts from honeys or bee pollens at various concentrations. To isolate the effect of glucose, present in the honeys, artificial honey, created from a combination of different sugars, was used. Cell viability was determined using the Alamar Blue assay after 24 hours of incubation with the different treatments.

Results and Discussion: Hepatoprotective results were obtained by evaluating cell viability in the presence of Ulmo honey, Quillay honey, and bee pollen. Treatment of cells with AAPH resulted in cellular damage, significantly decreasing cell viability. However, the addition of Ulmo honey, Quillay honey, and bee pollen in co-treatment with AAPH reversed this effect, significantly increasing cell viability. These findings indicate a hepatoprotective effect of Ulmo and Quillay honeys, as well as bee pollen on cell viability compromised by AAPH. The presence of bioactive compounds, such as antioxidants and flavonoids, in these apicultural derivatives may explain their ability to protect liver cells from AAPH-induced oxidative damage.

Conclusions: In conclusion, Ulmo and Quillay honeys, as well as bee pollen, demonstrated to be effective hepatoprotective agents, suggesting their therapeutic potential in protecting liver health.

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