## P-82 URSODEOXYCHOLIC ACID AND/OR CIPROFIBRATE FOR TREATING PATIENTS WITH PRESUMPTIVE DIAGNOSIS OF LOW PHOSPHOLIPID CHOLELITHIASIS, A CLINICAL SPECTRUM OF PROGRESSIVE FAMILIAL INTRAHEPATIC CHOLESTASIS TYPE 3

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**Introduction:** Low Phospholipid-Associated Cholelithiasis (LPAC) is a clinical spectrum of Progressive Familial Intrahepatic Cholestasis type 3 (PFIC3), with mutations in the *ABCB4* gene, reduced levels of phosphatidylcholine in bile, formation of cholesterol gallstones, damage of bile ducts epithelium and cholestasis. Ursodeoxycholic acid (UDCA) is effective and fibrates may also be used to activate *PPAR-α receptor,* inducing bile secretion of phosphatidylcholine.

**Aim:** Retrospectively evaluate efficacy and safety of ciprofibrate in LPAC/PFIC3.

**Method:** Diagnosis of PFIC3 was confirmed by detection of mutations of ABCB4 gene. LPAC diagnosis was suggested by 2 out of 5 criteria: biliary symptoms before 40 years; recurrence after cholecystectomy; intrahepatic lithiasis; cholelithiasis in first−degree relatives; intrahepatic cholestasis of pregnancy or contraceptive−induced cholestasis. Enzymes, liver function and pruritus were analyzed after 3, 6 and 12 months of UDCA and after ciprofibrate 100mg/day using the Wilcoxon test.

**Results:** 27(93%) patients with clinical diagnosis of LPAC and 2 of PFIC3. 23 (79%) female with mean age at onset of symptoms of 26.7± 13.6 years. 23(80%) had family history of biliary disease; 22(76%) cholelithiasis before 40 years; 7(24%) intrahepatic lithiasis. 22/29 (78%) received ciprofibrate after 4.5±4.9 months of UDCA use, in a mean dose of 13.1±2.2mg/kg/day. During UDCA there was a significant decrease in aminotransferases, alkaline phosphatase(AP) and gamma-glutamyltransferase(GGT) levels, without significant improvement in the liver function. After addition of fibrate, pruritus disappeared in all 7 patients, with significant improvement of AP, GGT and albumin in the third month. There was no significant renal dysfunction. Fibrate was discontinued in 8: 1 liver transplantation, 2 irregular use, 5 side effects. 27 patients are still in follow up.

**Conclusion:** Ciprofibrate was beneficial to improve pruritus and laboratory tests in LPAC/PFIC3 after partial response with UDCA. Fibrate therapy was safe and well tolerated.

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## P-83 RELEVANCE OF RENAL CHANGES IN A LARGE SERIES OF SEVERELY OBESE PATIENTS WITH METABOLIC ASSOCIATED FATTY LIVER DISEASE

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**Introduction:** Metabolic associated fatty liver disease (MAFLD) is the most common cause of chronic liver disease worldwide. Recently, the relationship between MAFLD and chronic kidney disease has raised more interest because this relationship may be an additional factor that interferes with the clinical course and prognosis of this frequent liver disease.

**Aim:** To evaluate the prevalence and clinical relevance of renal changes in severely obese patients. with MAFLD.

**Methodology:** A cross-sectional study was conducted with obese patients (BMI > 35 Kg/m$^2$) and MAFLD coming from a surgical treatment of obesity center between 2015 and 2018. MAFLD criteria: presence of steatosis (abdominal ultrasound); in addition to one of the following three criteria, overweight/obesity, type 2 diabetes mellitus (T2DM), and other features of metabolic disfunction. FIB-4 and APRI scores were used to define presence or evaluate liver fibrosis. Glomerular filtration rate was estimated by the CKD-EPI equation and the normal was considered ≥ 90 and <120 mL/min/1,73 m$^2$.

**Results:** A total of 394 individuals with MAFLD were included. Of these, 279 cases were female (70.8%) with a mean age of 36.8± 10 years. Arterial hypertension was observed in 162(41.1%) of the subjects and 66 (16.8 %) had T2DM. Glomerular filtration rate of 60-89 ml/min was observed in 57 (14.5%), 31 of these were not arterial hypertension (54.4%) and 46 (80.7%) did no presented T2DM. Thirteen (3.3%) of the obese cases with MAFLD already had advanced fibrosis.

**Conclusion:** The results show that severely obese with MAFLD may present renal alterations without other metabolic disfunction. The data also suggest that attention should be given to this complication in the obese patients, that can be the only risk factor to MAFLD.

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## P-84 IMPLEMENTATION OF A STEP-BY-STEP STRATEGY BASED ON THE TREATMENT CASCADE TO ELIMINATE HEPATITIS C VIRUS INFECTION IN THE HOSPITAL CENTRAL DE LAS FUERZAS ARMADAS FROM URUGUAY. PRELIMINARY REPORT

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**Background:** Strategies to achieve the World Health Organization target of eliminating hepatitis C virus (HCV) infection by 2030 (diagnosis of 90% of chronically infected persons and treatment of 80%) are required.

**Objectives:**

1) Determinate the status of HCV infection in the Hospital Central de las Fuerzas Armadas (HCFFAA) from Uruguay
2) Implement and evaluate a step-by-step elimination strategy.

**Methods:** A treatment cascade was constructed by:

A Estimation of the number of HCV chronic infection population of the HCFFA based on Uruguay prevalence (0,7%)

B Analyzing medical records of the Hepatology service (2000 −2020).

The strategy consisted on contacting sequentially patients not cured:

1. HCV RNA confirmed
2. HCV antibody positive, RNA not tested

**Results:**

1.008 chronically HCV infected people were estimated.

165 HCV antibody positive persons were detected, 30 were excluded (RNA negative).

Of the 135 left, 113 had RNA confirmation, 76 received treatments and 70 achieved sustained virological response (SVR).

Of 6 persons without SVR, 3 are currently on treatment and 3 could not be contacted.

Of 36 people RNA confirmed not treated, 20 were contacted: 10 were prescribed treatment and 10 were not candidate.

Of 22 HCV antibody positive people without RNA confirmation, 10 were contacted and RNA was requested (results pending).

Treatment prescription increased from 67 to 76% of HCV chronically infected RNA confirmed patients.

**Conclusion:** Strategy implementation was successful improving access to treatment.

Active testing is the next step plan to overcome the barrier of patient unawareness of HCV infection.

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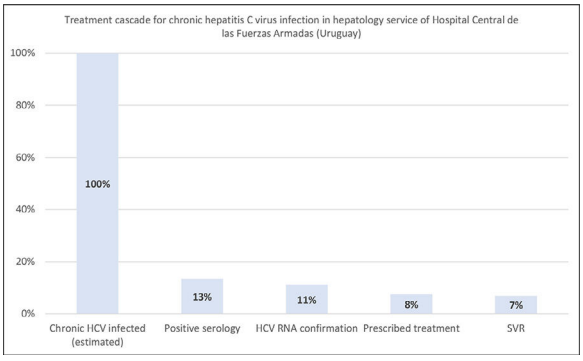


**Fig. 1.** Treatment cascade for chronic hepatitis C virus infection in hepatology service of Hospital Central de las Fuerzas Armadas (Uruguay)

## P-85 USE OF LOW DOSES OF GENERIC TACROLIMUS AND THERAPEUTIC LEVELS IN LIVER TRANSPLANT PATIENTS: RESULTS FROM A SINGLE CENTER IN PERU

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**Introduction:** Tacrolimus is the basis of immunosuppressive treatment in liver transplantation, with dosages of blood levels to ensure adequate graft function. In Peru, since 2005 generic tacrolimus has been used exclusively in all transplant centers due to lower costs. There are no presentations (0.5 mg), necessary for its use in a group of transplanted patients who require low doses of the drug.

**Objectives:** To show the results of the use of low doses (<2 mg/day) of generic tacrolimus, using 0.5 mg capsules and measure tacrolimus blood levels in correlation to the time of transplantation and the frequency of liver graft rejection, toxicity, or infections in this group of patients.

**Methods:** Observational, descriptive, cross-sectional, and retrospective study. Demographic data, transplant time, dose and blood levels of tacrolimus, rejection, and adverse effects were obtained from electronic medical records from October to December 2020. Inclusion criteria: adults, doses: <2 mg/day, > 3 months use of generic tacrolimus (NORGRAF: The Madras Pharmaceuticals, India) using 0.5 mg capsules, prepared by the Pharmacy Service at the Guillermo Almenara Hospital. Exclusion criteria: Pediatrics, retransplant, combined transplant. Statistical analysis and processing was using SPSS 23.

**Results:** Eleven of 246 patients (4.52%) were identified. All patients had blood levels within the therapeutic range in relation to transplantation time and graft function. Average daily dose: 1.3 mg (0.5-1.5 mg /d). Average blood levels: 5.82 ng/L (3.57-10.3 ng / ml). Average transplant time: 73 months (3-120 months). There were no rejection episodes or adverse effects of nephrotoxicity, neurotoxicity, or infections.

**Conclusion:** The use of low doses of generic tacrolimus (<2 mg/d), using 0.5 mg capsules prepared by the Pharmacy service, allows for the proper adjustment of the daily dose of immunosuppression, obtaining therapeutic success in the prevention of cellular graft rejection, especially in long-standing liver transplant patients without presenting toxicity.

| Patients | N | Daily dose(mg/día) | | | Blood level(ng/L) | | | Transplant Time (months) | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | X | SD | Me | X | SD | Me | X | DS | Me |
| Total | 11 | 1.3 | 0.25 | 1.5 | 5.82 | 2.11 | 5.46 | 73.2 | 29.25 | 78 |
| Male | 8 | 1.4 | 0.23 | 1.5 | 6.13 | 2.32 | 6.17 | 63.1 | 26.50 | 68 |
| 18-39 y | 1 | 1.5 | | | 9.45 | | | 74 | | |
| 60-79 y | 7 | 1.4 | 0.24 | 1.5 | 5.65 | 2.05 | 5.46 | 61.6 | 28.24 | 62 |
| Female | | | | | | | | | | |
| 40-59 y | 3 | 1.2 | 0.29 | 1.0 | 4.99 | 1.42 | 5.00 | 100 | 18.33 | 96 |

Table. Characteristics of patients, doses, blood levels and transplant time

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## P-86 MELD SCORE AND EARLY EXTUBATION IN THE INTENSIVE CARE UNIT AFTER LIVER TRANSPLANTATION: 20 YEARS EXPERIENCE IN A SINGLE CENTER IN PERU

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**Introduction:** Liver transplantation (LTx) is an effective therapy and is the only definitive treatment for acute and chronic liver diseases in selected patients. Time on mechanical ventilation and early extubation after liver transplantation (LTx) influences in morbidity and mortality and is a prognostic factor for early complications after transplantation.

**Objectives:** To show the MELD score and the tracheal extubation time in the immediate postoperative period after liver transplantation.

**Methods:** Descriptive, retrospective study. The medical records of 209 adult liver transplant patients were reviewed, carried out from March 23, 2000 to November 30, 2020, treated in the Intensive Care Unit (ICU) by the Transplant team at the Guillermo Almenara National Hospital in Lima, Peru. Inclusion criteria: adults over 18 years old, exclusion criteria: under 18 years old, fast track in the operating room, double transplant, SPLIT, Domino technique.

**Results:** In 146 of 209 patients (69.9%) we performed successful tracheal extubation < 1 day: 31 patients (14.8%), 1-3 days, 26 patients (12.4%) 4-7 days, > 7 days:(0.47%). The MELD score did not have any impact in the time of tracheal extubation in ICU in the diferents groups In our study.