anti-HCV+, a confirmatory test was performed with PCR HCV-RNA. Neonates of HBsAg+ or HCV+ were follow-up for 3 years.

Results: 2762 births were included during the period under study. Five (0.18%) HBsAg+ pregnant women were identified, median age was 25 years (range 17-36), of which only 1 had anti-HBcIgG+. Given the suspicion of chronic HBV and the delay in obtaining the HBV-DNA results, treatment with tenofovir was started. In successive controls, no chronic HBV infection was diagnosed in neonates. Anti-HCV + was detected in 8 (0.29%) patients, with a median age of 29 years (range 19-38 years), of which only one patient presented detectable HCV-RNA, genotype 4. This patient had a diagnosis of HCV chronic prior to pregnancy and her son presented anti-HCV- at age 3. Finally, one patient with HBsAg+ and another with anti-HCV+, but negative viral loads presented HIV+.

Conclusions: The gestation period is an excellent opportunity to carry out health checks. During the studied period, the seroprevalence of HBsAg+ and anti-HCV+ was very low. These types of interventions are essential to achieve the objectives set by the WHO.

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O-2 EVALUATION OF RISK FACTORS AND PROGNOSIS OF HEPATOCELLULAR CARCINOMA RECURRENCE AFTER LIVER TRANSPLANTATION

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Introduction and Objectives: Liver transplantation (LT) is the preferred treatment for early-stage HCC. Despite restrictive criteria (Milan), recurrence is high and negatively impacts on LT survival. This study aimed to evaluate risk factors and prognosis of HCC recurrence after LT.

Materials and Methods: Retrospective Brazilian university hospital HCC-transplanted cohort (2002 -2021). Patients transplanted for other causes, with a follow-up < 1 year or with incidental HCC at explant were excluded. Primary outcome was recurrence of HCC. Secondary outcomes were survival and time elapsed until HCC diagnosis. Tumor burden was the sum diameter of all nodules at explant. Data extraction was conducted with Excel, and statistical analysis was performed with SPSS.

Results: 186 patients were included (males 123 [66.1%], median age 56 years-old), 153 (82.3%) Milan-in. Locoregional waiting-list therapy was trans arterial chemoembolization (TACE), percutaneous ethanol injection (PEI) or TACE + PEI in 63 (34.2%), 58 (31.5%) and 42 (22.8%) individuals, respectively. Downstaging was achieved in 31 patients (17.8%). Explant analysis with microvascular invasion and Milan-out was detected in 31 (16.9%) and 33 (18%) individuals, respectively. HCC recurrence occurred in 22/183 patients (12%), associated with pre-LT alfa-fetoprotein (AFP) (1.881 [IQR 109-4.510] x 6 [IQR 3-39], p=0.02), Milan-out at explant (59.1% x 11.3%, p<0.0001), microvascular invasion (45.5% x 13.9%, p<0.001), and tumor burden at explant (3.9 cm [IQR 3.2-7] x 3 cm [IQR 2-4], p=0.02). Downstaging had no impact on HCC reappearance. Median recurrence time was 22 months (IQR 10.5-42.5); most frequent sites were lungs (18.2%), liver (13.6%) or multiple (36.4%). Median survival after HCC recurrence was 17 months (IQR 6.5-36).

Conclusions: Tumor burden, Milan-out at explant, microvascular invasion and higher pre-LT AFP levels had a negative impact on HCC recurrence. This can identify patients with higher risk of recurrence by planning screening protocols and making early diagnoses to guide effective treatment.

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O-3 DEVELOPMENT OF LENTIVIRAL VECTORS FOR INHIBITION OF HEPATITIS B VIRUS VIA SMALL INTERFERING RNA

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Introduction and Objectives: It is estimated that chronic hepatitis B virus (HBV) infection accounts for one million deaths/year due to cirrhosis and liver cancer. Currently, several drugs are used in the treatment of HBV; however, a complete cure is still controversial. The major challenge is the persistence of viral covalently closed circular DNA (cccDNA), as well as the ability of HBV to integrate into the host genome, which enables the infection's reactivation. Interfering RNA (RNAi) is a post-transcriptional mechanism of gene silencing and is a promising alternative for the treatment of chronic hepatitis B. We aimed to construct effective RNAi lentiviral vector to silencing HBV proteins (HBsAg, HBcAg, HBeAg) and pre-genomic RNA (pgRNA), via RNAi.

Materials and Methods: The silencing vector candidates targets overlapped Open Reading Frames (ORFs), allowing different viral proteins and the pgRNA to be silenced with a single RNAi. The efficiency of silencing by lentiviral vectors candidates used individually or in combination, have been assessed by quantification of HBV proteins by eletroquimioluminescence and quantification of HBV DNA during the post-transfection period by quantitative PCR.

Results: Three silencing vectors candidates were constructed and tested in silico to prevent off-target effects. Stability and secondary structures have also been tested. Huh7 cells were transfected with 1ug of purified HBV genome circular monomers (genotype A1) and 3 days later, infected with the first lentiviral candidate (siHBV-1), targeting S/Pol genes of HBV (108 TU/mL). From the third day post-infection, HBsAg became undetectable on cells infected by the lentiviral vectors, while untreated controls maintained viral protein expression (p<0.002). HBV DNA were also undetectable by PCR.

Conclusions: siHBV-1was able to silence HBV in vitro. This approach allows long- term, sustained knockdown of HBV replication and gene expression, which can effectively promote HBV clearance in chronic carriers.

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O-4 MBOAT7 RS641738 IS ASSOCIATED WITH PROGRESSION TO CIRRHOSIS IN NON-ALCOHOLIC FATTY LIVER DISEASE IN LATIN AMERICA

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