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EVALUATION OF VENTURI SCORE IN A COHORT OF ADULT LIVER TRANSPLANTED PATIENTS

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Background: The evaluation of liver fibrosis in liver-transplanted patients is essential to assess long-term prognosis of liver grafts. The Metavir score is the gold standard to assess liver fibrosis however, it is not designed for this population. The Venturi score, already validated in pediatric cohorts, evaluate liver fibrosis taking into account centrilobular, portal and sinusoidal fibrosis with a score from 0 to 3 depending on the severity of fibrosis. Our aim is to assess the Venturi score in adult liver-transplanted patients.

Methods: 52 patients who underwent protocol liver biopsies between 1st October 2019 and 31st of March 2020 were included. The Venturi score was calculated for all the biopsies performed since transplantation. The association between the different scores was tested through the Spearman's rank correlation coefficient, which was reported alongside the 95% confidence interval (CI). The relationship between the different scores was modelled through linear regressions and r^2 were reported. All tests were two-tailed. Significance was retained at $P < 0.05$. **Results:** 52 patients were included, with a total of 100 Venturi scores performed. The majority of the patients were male (67%), with a median age of 59 (range : 10 ; 68). Mean BMI was 26 kg/m² (range : 17 ; 43). The majority of the patients were transplanted for alcohol-related cirrhosis (40.4 %), 15.4 % for viral hepatitis. 28 % had hepatocellular carcinoma at the time of transplantation. There were 5 fulminant hepatitis. Patients received liver graft from Heart-Beating-Donor (HBD) in 46.15 %, from non-HBD (Maastricht III) in 25 %, there were 9.61 % of HBD splits and 7.69 % of living donors. The mean donor age was 53 Years-old (range : 8 ; 80). There was no ABO mismatch in this cohort. The mean time between biopsies and transplantation was 3.9 years (range : 5 months; 30 years). At the time of liver biopsy, 3 patients were drinking alcohol. The mean Metavir score was 0.87. The mean Venturi score: 1.89. Fibroscan was performed in only 7 patients. We found a moderate positive correlation between the Venturi score and the Metavir score (Spearman's ρ correlation coefficient=0.48, 95%CI=0.28-0.63, $P < 0.01$). The Venturi score explained the 18% of the variation of the Metavir score ($r^2=0.18$, $P < 0.01$). There was no correlation between Metavir or Venturi score and biological fibrosis scores such as Fib4 and APRI. **Conclusion:** There is a positive correlation between Metavir and Venturi scores for the assessment of liver-transplanted graft in adults. Data are missing about the correlation of fibrosis scores with graft survival, liver function and patients morbi-mortality.

Disclosures:

The following people have nothing to disclose: Boris Cleret De Langavant, Lara Saidane, Samuele Iesari, Pamela Baldin, Eliano Bonaccorsi Riani, Olga Ciccarelli, Laurent Coubeau, Benedicte Delire, Geraldine Dahlqvist

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FACTORS ASSOCIATED WITH CARDIOVASCULAR EVENTS AFTER SIMULTANEOUS LIVER KIDNEY TRANSPLANT (SLKT): RESULTS FROM THE U.S. MULTICENTER SLKT CONSORTIUM

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Background: Cardiovascular disease is a leading cause of morbidity and mortality after both liver and kidney transplantation. Factors associated with, and rates of, cardiovascular events (CVEs) after simultaneous liver-kidney transplant (SLKT) are not well studied. **Methods:** This was a multicenter retrospective cohort study of adult SLKT recipients between 2002-2017 at 6 large transplant centers in 6 United Network for Organ Sharing regions as part of the U.S. Multicenter SLKT Consortium. The primary outcome was a CVE defined as hospitalization due to acute coronary syndrome, arrhythmia, or congestive heart failure within 1 year of SLKT. The cohort was stratified by era of SLKT allocation policy. Logistic regression analysis was used to assess factors associated with a 1-year CVE.

Results: Among 515 SLKT subjects (mean age 55.4 ± 10.6 years, 35.5% women, 68% white), 47 (9.3%) had a CVE within 1 year of SLKT. The prevalence of a CVE within 1 year of SLKT increased by era from 3.3% in 2002-2008 to 10.0% in 2009-2011 to 14.4% in 2012-2017 ($p=0.0004$). SLKT recipients with a CVE were older (59.9 vs 54.9 years) and more likely to have prevalent coronary artery disease (CAD) (40.4% vs 18.1%) compared to those without a CVE ($p < 0.0001$ for both). There were no significant differences in the prevalence of hypertension, diabetes, obesity, indication for liver transplant, or hemodialysis at time of SLKT listing. There was also no difference in the prevalence of new onset diabetes, hypertension, or in estimated glomerular filtration rate at 1-year post-SLKT between those with or without a CVE. There were no differences in immunosuppression regimen between groups. There was a trend towards older age by era of SLKT ($p=0.054$, Figure 1); CAD prevalence did not differ by era ($p=0.12$). In multivariate analysis adjusted for cardiac risk factors present at time of SLKT, only age (OR 1.05, 95% CI 1.0, 1.10) and CAD (OR 2.71, 95% CI 1.37, 5.34) were significantly associated with a CVE within 1 year of SLKT. **Conclusion:** In a large, contemporary cohort of SLKT recipients, we observed a 4-fold increase in the prevalence of 1-year CVEs over time. Increasing age was the main potential explanatory factor for this trend independent of other cardiac