

Liver Index ($p<0.001$), calculated liver percentage ($p<0.001$) and NAFLD liver fat score ($p=0.001$) were significantly higher in patients with a hypertriglyceridemic waist (marker of the atherogenic metabolic triad). After 6 months of diet patients achieved a mean weight loss of $9.1\pm5.6\%$ and most parameters of the lipid metabolism improved significantly, except for the HDL subspecies HDL2a ($p=0.083$), HDL3a ($p=0.487$) and HDL3c ($p=0.342$) and ApoA1 ($p=0.762$) which remained unchanged. Changes in lipids (TG, HDL, HDL2b, HDL3a, HDL3b, HDL mean particle size, ApoB, ApoE and RLP) were closely related to changes in visceral adipose tissue.

Conclusions: We confirm the proatherogenic lipid profile in NAFLD, with high total cholesterol, high LDL and smaller LDL peak particle size. This lipid profile is associated with markers of steatosis and fibrotic NASH, suggesting that dyslipidaemia may play a role in the link between NAFLD and CVD. Investigating the effect of weight loss on lipid metabolism in an obese population with evidence of NAFLD, we observed that weight loss improves most parameters of lipid metabolism during the first 6 months of diet.

A29

INFUSION OF THIRD-PARTY MESENCHYMAL STROMAL CELLS AFTER LIVER TRANSPLANTATION: A PHASE I, OPEN-LABEL, CLINICAL STUDY

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Introduction: Mesenchymal stromal cells (MSC) are multipotent bone marrow progenitors that have demonstrated significant immunosuppressive effects in various in vivo and in vitro studies.

Aim: This study aimed to be the first evaluation of the safety and tolerability of MSC infusion after liver transplantation in a prospective, controlled phase-1 study.

Methods: Clinical grade MSCs were locally collected from the bone marrow of unrelated healthy donors. They were cultured in a GMP-compliant lab, underwent extensive quality controls and were frozen for storage in a MSC bank. When needed for patient treatment, MSC were thawed and intravenously injected into patients. 10 liver transplant recipients under standard immunosuppression (TAC-MMF-low dose steroids until day 30) received $1.5\text{--}3\times10^6/\text{kg}$ MSC on post-operative day 3 ± 2 . These patients were prospectively compared to a group of 10 control (MSC-) liver recipients. Primary endpoints were MSC infusion toxicity, and incidence of cancer and opportunistic infections at month 6. Secondary endpoints were patient and graft survivals and rejection at month 6, as well as the effects of MSC on recipients' immune function and on immunohistology of at month 6 graft biopsies.

Results: Results: No MSC infusional toxicity was observed. Both groups were comparable in terms of donor and recipient characteristics. There was no difference in primary end-points between control and MSC groups. No patient developed de novo cancer. There was no statistical difference in patient and graft survivals or in rejection rates. There was no graft rejection in the MSC group. Month-6 graft biopsies were not different according to Banff and fibrosis scores.

Conclusions: This phase 1 study showed excellent tolerability and safety of a single infusion of third-party MSC after liver transplantation. There were no graft safety issues and no excess

of immunosuppression after MSC injection. Further analyses of consequences of MSC injection on the immune profile are needed. The possibility of avoiding calcineurin-inhibitors with repeated MSC injections as main immunosuppressive therapy and/of tolerance induction by MSC infusion should be investigated by further studies.

A30

Liver fibrosis evaluation using real-time shear wave elastography in chronic hepatitis C.

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Introduction: Evaluation of fibrosis stage in chronic hepatitis C patients (HCV) guides decision making of follow-up and therapy and is prognostically relevant. Liver biopsy is the gold standard, but has limitations which necessitate the search for noninvasive reliable methods of liver fibrosis assessment. Real-time shear wave elastography (SWE) is a recent, noninvasive tool to assess liver fibrosis by measuring liver stiffness (LS). Few studies have evaluated the accuracy of SWE in HCV, but excluded HIV co-infected patients.

Aim: To assess the diagnostic performance of LS, measured by SWE, as a noninvasive predictor of liver fibrosis in HCV using liver biopsy as a gold standard and to evaluate a potential difference between mono-infected and co-infected patients.

Methods: We measured LS in patients with HCV undergoing liver biopsy. Fibrosis was staged according to the METAVIR scoring system. Analyses of receiver operating characteristic (ROC) curve were performed to calculate optimal area under the ROC curve (AUROC) for F0-F1 vs F2-F4, F0-F2 vs F3-F4 and F0-F3 vs F4.

Results: 80 patients (53 mono-infected, 27 co-infected) were included. Distribution of fibrosis was 12% F0, 41% F1, 20% F2, 18% F3 and 9% F4. There was a significant correlation between LS and fibrosis stage (Spearman's Rho 0.69, $p < 0.0001$). AUROCs were 0.84, 0.88 and 0.98 when comparing F0-F1 vs F2-F4, F0-F2 vs F3-F4 and F0-F3 vs F4, respectively. Suggested cut-off values are 8.5kPa for F2, 10.4kPa for F3 and 11.3kPa for F4 with a sensitivity and specificity of 81% and 84%, 81% and 95% and 100% and 90%, respectively. There was no significant difference between LS values of mono-infected compared to co-infected patients ($p = 0.811$).

Conclusions: This is the first study of LS by SWE that includes HCV-HIV co-infected patients. SWE of the liver is a reliable noninvasive predictor of liver fibrosis in HCV patients. There is no significant difference between mono- and co-infected patients, hence the same cut-off values can be used for both groups.

A31

Health-related quality of life is improved after liver transplantation and is related to disease acceptance, helplessness and perceived disease benefits

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Introduction: Liver transplantation (LT) is the only curative treatment for end-stage liver disease with excellent long-term outcomes, regarding morbidity and mortality rates. However,