

POSTER PRESENTATIONS

after curative surgery (Fig.3); 4. In the multivariate model, CX3CR1+ Mreg was identified as an independent prognostic factor for DFS (HR:3.400, 95%CI: 1.900-6.084, $P < 0.001$). 4. Elevated CX3CL1 facilitated recruitment and infiltration of Mregs (Fig.4).

Conclusion: Enhanced CX3CL1/CX3CR1 interaction facilitated intra-graft Mreg infiltration, which subsequently promoted iCCA recurrence after curative surgery.

LBP21

Serum-based Metabolomics-Advanced Steatohepatitis Fibrosis Score (MASEF) for the non-invasive identification of patients with non-alcoholic steatohepatitis with significant fibrosis

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Background and aims: The burden of non-alcoholic fatty liver disease (NAFLD) is increasing globally. The major priority is to identify patients with non-alcoholic steatohepatitis (NASH) who are at greater risk of progression to cirrhosis, and who will be candidates for clinical trials and emerging new therapies. We aimed to develop a highly specific serum-based score to identify patients with NASH, NAFLD activity score (NAS) ≥ 4 , and significant fibrosis (F2-F3).

Methods: This study included a derivation cohort before validation in multiple international cohorts ($n = 908$). The derivation cohort was a cross-sectional, multicenter study of patients aged 18 years or older, who underwent liver biopsy for suspicion of NAFLD. To classify those patients with NASH at increased risk, a NAS score of ≥ 4 (with at least one point on each of steatosis, lobular inflammation and ballooning) and significant fibrosis (F2-F3) were used. The best fitting multivariable logistic regression model was identified and internally validated using boot-strapping. Score calibration and discrimination performance were determined in both the derivation and validation dataset.

Results: We performed serum metabolomic testing in an original cohort of 790 patients that was subsequently blind validated in a derivation cohort of 118 patients. From a total of 289 lipids analyzed, the final MASEF score included only 12 lipids, body mass index (BMI), aspartate aminotransferase (AST) and alanine aminotransferase (ALT). Using logistic regression analysis, we could discriminate between NASH patients; NAS ≥ 4 and F2-F3 compared to those without these features. The diagnostic performances of the MASEF score showed an area under the receiver operating characteristic curve (AUC), sensitivity, specificity, positive predictive value (PPV) and negative predictive value (NPV) of 0.81 ± 0.02 , 0.36, 0.96, 0.86

and 0.62 respectively, for the mentioned discrimination. While in the derivation cohort the AUC, sensitivity, specificity, PPV, and NPV were 0.82 ± 0.04 , 0.20, 0.95, 0.62 and 0.75, respectively.

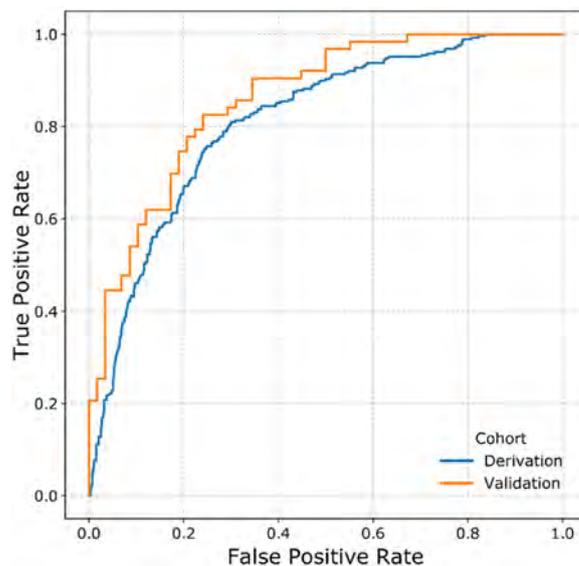


Figure: ROC Curves for the derivation cohort (blue) and validation cohort (orange).

Conclusion: The MASEF score provides an accurate, serum-based, easy to use test to non-invasively identify patients at risk of progressive NASH eligible for clinical trials or treatment.

LBP22

Screening for non-alcoholic fatty liver disease in persons with type 2 diabetes in the U.S. is cost effective: A comprehensive economical analysis

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Background and aims: Globally, the prevalence of non-alcoholic fatty liver disease (NAFLD) is rising. It is imperative to identify high-risk patients whose disease may progress to significant liver fibrosis ($\geq F2$). The American Association for the Study of Liver Diseases (AASLD) has no firm guidelines for non-alcoholic steatohepatitis (NASH) screening in high risk individuals due to inadequate data cost effective and treatment options.

Method: This cost-effectiveness analysis was developed to compare the value of screening in type 2 diabetes (T2D) patients for NASH against not screening. A Markov model was used to conduct a cost-utility analysis of 3 NAFLD screening methods consisting of combinations of ultrasound (US), alanine aminotransferase (ALT) determination followed by (1) liver biopsy alone, or (2) transient elastography for detection of patients more likely to have significant fibrosis ($\geq F2$) followed by liver biopsy or (3) transient elastography alone. Post-detection, patients were hypothetically treated with weight reduction induced by intensive lifestyle intervention (ILI). Data provided by Vilar-Gomez et al. showed that 10% of patients who received the ILI were expected to lose over 10% of their body weight in 12 months. Costs (USD) and quality-adjusted life years (QALYs) were