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MASH
#P29 - Prognostic role of ELF test compared to liver biopsy in patients with MASLD

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Background & Aims

Liver fibrosis is the main prognostic risk factor in MASLD. The enhanced liver fibrosis (ELF) score is a composite of direct fibrosis biomarkers that reflect extracellular matrix turnover. Our aim is to compare the prognostic effectiveness of ELF and liver histology in patients with MASLD.

Methods

We retrospectively enrolled 289 patients with MASLD. The ELF score calculation and liver biopsy were performed at baseline. The primary outcome was a composite endpoint including all-cause mortality, hepatocellular carcinoma, liver transplantation, or complications related to cirrhosis (ascites, variceal bleeding, hepatic encephalopathy, MELD≥15). Subjects were stratified based on existing literature cut-offs for ELF (≤9.8, 9.8-11.3, ≥11.3), and histology (METAVIR F≤2, F3, F4) to assess the risk of occurrence of the primary outcome.
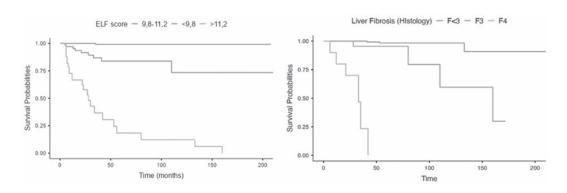
Results

We included data of 289 patients (30.4% female, median age 50yo [IQR 39-58], medianBMI 28.7 kg/m2 [IQR 25.5-31.8] and 28% had diabetes). After a median follow-up of 41 months [IQR 21-68], the composite endpoint was observed in 34 (11.8%) patients. Survival curves for pairwise comparisons between groups showed significant differences according to predefined histological and NITs stratification (Log Rank test $p<0.05$). At multivariate Cox regression analysis, ELF and liver histology were significant predictors of the primary outcome after adjusting for gender, type 2 diabetes, age and BMI. (ELF>11.2vs<9.8 HR 135.4 [95%CI 15.9-1149.0 $p<0.001$], 9.8-11.2vs<9.8 HR 22.5 [95%CI 2.7-183.9 $p<0.001$])

Conclusions

ELF, a simple non-invasive blood test, performed as well as histologically assessed fibrosis in predicting clinical outcomes and should be considered as an alternative to liver biopsy for prognostic assessment in patients with MASLD.

Kaplan-Meier curves:
https://livebyglevents.key4register.com/key4register/api.aspx?e=199&img=Kaplan+Meier+ELF.png&ai=10901&op=getabstractimg&dirN=0