Balance between macrophage migration inhibitory factor and sCD74 predicts outcome in patients with acute decompensation of cirrhosis

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Table S1. Baseline characteristics and causes of death in patients with acute decompensation of cirrhosis without ACLF

	Stable Decompensated Cirrhosis (n=79)	Unstable Decompensated Cirrhosis (n=68)	Pre-ACLF (n=67)	P value
Age (yrs)	57 (50-67)	58 (50-66)	63 (56-70)	0.004
Male sex (%)	63 (80%)	45 (66%)	50 (75%)	0.18
HCC at baseline (%)	13 (16%)	7 (10%)	16 (24%)	0.12
Alcoholic liver disease (%)	67 (85%)	54 (79%)	47 (70%)	0.10
Child Pugh C (%)	51 (65%)	31 (46%)	38 (57%)	0.07
MELD score	15 (11-19)	13 (10-17)	16 (12-21)	0.02
SBP at baseline (%)	6 (8%)	4 (6%)	13 (19%)	0.03
Bilirubin (µmol/L)	40 (22-81)	28 (18-52)	42 (19-82)	0.02
INR	1.4 (1.2-1.6)	1.3 (1.2-1.5)	1.4 (1.2-1.6)	0.52
Creatinine (µmol/L)	72 (61-108)	77 (59-109)	103 (72-140)	<0.001
WBC [/nl]	6.6 (5.3-9.4)	5.8 (4.1-8.9)	6.7 (5.1-9.2)	0.08
CRP [mg/l]	28.4 (12.7-54.0)	23.8 (10.6-52.8)	34 (23.7-62.1)	0.03

MIF [ng/ml]	2.6 (0.0-28.12)	2.87 (0.0-69.16)	3.88 (0.0-70.56)	0.54
sCD74 [ng/ml]	76.91 (0.0-663.4)	41.29 (0.0-528.6)	32.63 (0.0-1237)	0.07
Causes of death within 90 days				
ACLF	0	1	33	<0.001
Malignancy	2	1	2	
Other	0	2	1	
Unknown	3	1	1	

Baseline characteristics are depicted as frequencies or medians with interquartiles. *P* values are based on Kruskal-Wallis test for continuous and Fisher's exact test for categorial variables. Abbreviations: HCC hepatocellular carcinoma; SBP spontaneous bacterial peritonitis, WBC white blood cell count, CRP C-reactive protein.

Table S2. Baseline characteristics of patients with compensated cirrhosis (n=41)

	Compensated cirrhosis (n=41)
Age (yrs)	63 (56-70)
Male sex (%)	19 (46%)
HCC at baseline (%)	11 (27%)
Alcoholic liver disease (%)	10 (24%)
MELD score	7 (6-9)
Bilirubin (µmol/L)	14 (11-18)
INR	1.1 (1.0-1.1)
Creatinine (µmol/L)	69 (62-82)
WBC [/nl]	5.4 (4.7-7.6)
CRP [mg/l]	2.6 (2.0-6.2)
MIF [ng/ml]	2.45 (1.07-5.86)

Baseline characteristics are depicted as frequencies or medians with interquartiles.

Abbreviations: HCC hepatocellular carcinoma; SBP spontaneous bacterial peritonitis, WBC white blood cell count, CRP C-reactive protein.

Table S3. SNP -173C C/C genotype correlates with lower sCD74 serum level.

	No. of patients (n=292)	Serum MIF [ng/ml] Median (interquartile range)	P value	Serum sCD74 [ng/ml] Median (interquartile range)	P value
MIF promoter SNP -173C					
GG	205	3.1 (1.7-7.5)		56.8 (8.7-128.1)	0.003
GC	63	3.2 (1.4-6.5)		23.1 (4.2-65.6)	
CC	19	2.5 (1.4-5.2)	0.57	16.3 (0.0-69.1)	
MIF promoter microsatellite CATT$_{5-8}$					
Both alleles <7 repeats	213	3.1 (1.7-7.5)		50.8 (7.2-115.0)	
Any allele ≥ 7 alleles	62	2.6 (1.2-5.2)	0.13	27.9 (1.2-81.7)	0.07

Analysis of MIF and sCD74 serum level and genotypes of MIF promoter polymorphisms SNP -173C and microsatellite CATT$_{5-8}$. Absolute patient numbers and medians with interquartiles are shown. *P* values are related to Kruskal-Wallis test for continuous variables; bold value indicates *P* < .05.

Table S4. Genotypes of MIF promoter polymorphisms SNP -173C and microsatellite CATT$_{5-8}$ do not correlate with 90-days transplant free survival

	Follow-up at 90 days			Univariate Cox regression model	
	No of patients dead or transplanted (n=93)	No of patients alive without transplant (n=199)	*P* value	Hazard ratio (95% CI)	*P* value
MIF promoter SNP -173C					
GG	68	137		1.00 (reference)	0.65
GC	17	46		0.78 (0.46-1.33)	
CC	6	13	0.71	1.01 (0.44-2.33)	
MIF promoter microsatellite CATT$_{5-8}$					
Both alleles <7 repeats	72	141		1.00 (reference)	
Any allele ≥ 7 alleles	15	47	0.17	0.70 (0.40-1.22)	0.21

Univariate Cox proportional hazards regression analysis of MIF promoter polymorphisms SNP -173C and microsatellite CATT$_{5-8}$ and 90-days transplant-free mortality.

Table S5. Baseline characteristics of patients undergoing transjugular intrahepatic portosystemic stent shunting (n=96).

Age (years)	52 (36-77)
Sex	
Male	64 (67%)
Female	32 (33%)
CHILD Pugh Score	
A	17 (17%)
B	65 (66%)
C	16 (17%)
Etiology of cirrhosis	
Alcohol	47 (75%)
Viral hepatitis	7 (11%)
AIH/PSC/PBC	2 (3%)
cryptogenic	7 (11%)
Indication for TIPS	
Variceal Bleeding	39 (40%)
Ascites	43 (44%)
Bleeding + ascites	8 (8%)
Hepatorenal syndrome	7 (7%)

Baseline characteristics are depicted as frequencies and percentages.