

## Supplementary Materials

**Supplementary Table 1 Calculation method for liver condition assessment indicators**

Index	Calculation Method
CP Score <sup>b</sup>	The total score is the sum of scores from the following items: hepatic encephalopathy, 1 point (none), 2 points (grade I or II), 3 points (grade III or IV); ascites, 1 point (none), 2 points (mild), 3 points (moderate or severe); TBIL [ $\mu\text{mol/L}$ ], 1 point ( $<34$ ), 2 points ( $34 \leq \text{TBIL} \leq 51$ ), 3 points ( $>51$ ); ALB [ $\text{g/L}$ ], 1 point ( $>35$ ), 2 points ( $28 \leq \text{ALB} \leq 35$ ), 3 points ( $<28$ ); PT [s], 1 point ( $<18$ ), 2 points ( $18 \leq \text{PT} \leq 20$ ), 3 points ( $>20$ )
ALBI Score <sup>c</sup>	$\log_{10} \text{TBIL} [\mu\text{mol/L}] \times 0.66 + \text{ALB} [\text{g/L}] \times (-0.085)$
MELD Score	$9.57 \times \log_e \text{CREA} [\mu\text{mol/L}] + 3.78 \times \log_e \text{TBIL} [\mu\text{mol/L}] + 11.2 \times \log_e \text{INR} + 6.43$
FIB-4	$(\text{age} [\text{year}] \times \text{AST} [\text{U/L}]) / (\text{PLT} [\times 10^9/\text{L}] \times \sqrt{\text{ALT} [\text{U/L}]})$

<sup>a</sup>Abbreviation: CP, Child-Pugh; TBIL, total bilirubin; ALB, albumin; PT, prothrombin time; ALBI, albumin-bilirubin; MELD, model for end-stage liver disease; CREA, serum creatinine; INR, international normalized ratio; FIB-4, Fibrosis-4 score; AST, aspartate aminotransferase; PLT, platelet; ALT, alanine aminotransferase.

<sup>b</sup>CP grade was defined as follows: grade A (CP score  $\leq 6$ ); grade B ( $7 \leq \text{CP score} \leq 9$ ); grade C ( $10 \leq \text{CP score} \leq 15$ ).

<sup>c</sup>ALBI grade was defined as follows: grade 1 (ALBI score  $\leq -2.60$ ); grade 2 ( $-2.60 < \text{ALBI score} \leq -1.39$ ); and grade 3 (ALBI score  $> -1.39$ ).

**Supplementary Table 2 Receiver operating characteristic analyses about assessment of liver condition by Emean in patients with different alanine aminotransferase**

		Pos group			Neg group		
		Cutoff (kPa)	AUC (95%CI)	<i>p</i>	Cutoff (kPa)	AUC (95%CI)	<i>p</i>
		ALT ≤40 U/L (n=122)			ALT ≤40 U/L (n=71)		
CP score	>5	7.40	0.64 (0.55-0.73)	0.017*	9.30	0.69 (0.56-0.79)	0.013*
	>6	12.40	0.76 (0.68-0.84)	0.034*	10.40	0.66 (0.54-0.77)	0.133
	>7	<sup>b</sup> -	-	-	10.40	0.82 (0.71-0.90)	0.001**
ALBI grade	>1	8.40	0.63 (0.54-0.71)	0.014*	9.30	0.63 (0.51-0.74)	0.045*
		ALT >40 U/L (n=78)			ALT >40 U/L (n=13)		
CP score	>5	13.00	0.62 (0.51-0.73)	0.067	<sup>b</sup> -	-	-
	>6	16.40	0.68 (0.57-0.78)	0.064	<sup>b</sup> -	-	-
	>7	<sup>b</sup> -	-	-	<sup>b</sup> -	-	-
ALBI grade	>1	12.80	0.67 (0.56-0.78)	0.005**	9.30	0.71 (0.41-0.92)	0.222

<sup>a</sup>Abbreviation: ROC, receiver operating characteristic; Emean, mean of liver stiffness; ALT, alanine aminotransferase; HBV, hepatitis B virus; Pos group, HBV-DNA positive group; Neg group, HBV-DNA negative group; AUC, area under the ROC curve; CP, Child-Pugh; ALBI, albumin-bilirubin.

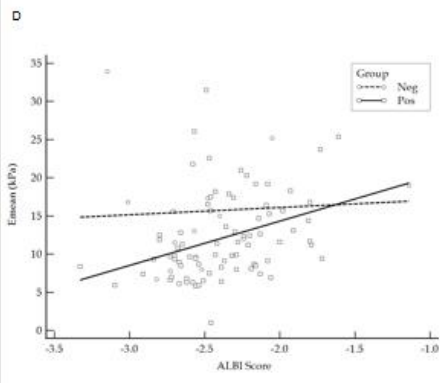
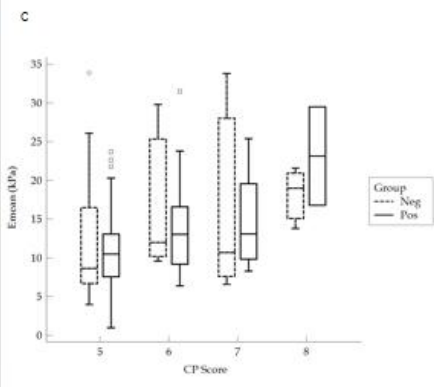
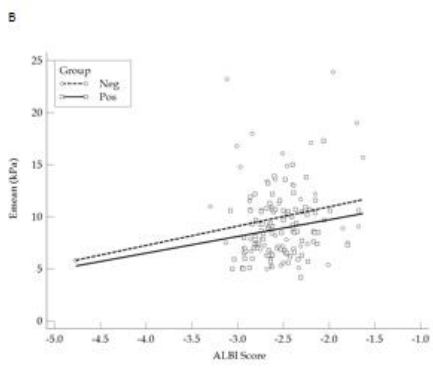
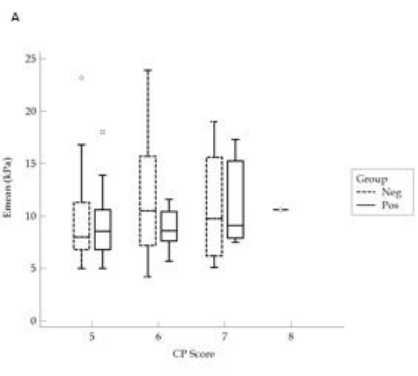
<sup>b</sup>An effective ROC curve could not be established because of the small sample size.

**Supplementary Table 3 Receiver operating characteristic analyses about assessment of liver condition by Emean in patients with different aspartate aminotransferase**

		Pos group			Neg group		
		Cutoff (kPa)	AUC (95%CI)	<i>p</i>	Cutoff (kPa)	AUC (95%CI)	<i>p</i>
		AST ≤37 U/L (n=92)			AST ≤37 U/L (n=61)		
CP score	>5	7.00	0.54 (0.43-0.64)	0.571	10.20	0.60 (0.47-0.73)	0.293
	>6	7.40	0.63 (0.52-0.73)	0.498	10.40	0.57 (0.44-0.70)	0.670
	>7	<sup>b</sup> -	-	-	<sup>b</sup> -	-	-
ALBI grade	>1	8.40	0.55 (0.44-0.66)	0.399	7.00	0.60 (0.47-0.72)	0.169
		AST >37 U/L (n=108)			AST >37 U/L (n=23)		
CP score	>5	13.60	0.67 (0.57-0.76)	0.003**	9.30	0.67 (0.45-0.85)	0.150
	>6	18.80	0.71 (0.62-0.79)	0.011*	12.40	0.64 (0.42-0.83)	0.300
	>7	16.40	0.89 (0.82-0.95)	<0.001**	12.40	0.73 (0.51-0.89)	0.020*
ALBI grade	>1	9.70	0.66 (0.56-0.75)	0.010*	9.30	0.74 (0.51-0.90)	0.068

<sup>a</sup>Abbreviation: ROC, receiver operating characteristic; Emean, mean of liver stiffness; AST, aspartate aminotransferase; HBV, hepatitis B virus; Pos group, HBV-DNA positive group; Neg group, HBV-DNA negative group; AUC, area under the ROC curve; CP, Child-Pugh; ALBI, albumin-bilirubin.

<sup>b</sup>An effective ROC curve could not be established because of the small sample size.



**Supplementary Figure 1 Correlation Between Emean and Liver Condition in Patients with Different Levels of aspartate aminotransferase.** A: Box Plot of the Correlation Between Emean and Child-Pugh Score in Patients with Normal AST; B: Line Graph of the Correlation Between Emean and ALBI Score in Patients with Normal AST; C: Box Plot of the Correlation Between Emean and Child-Pugh Score in Patients with Increased AST; D: Line Graph of the Correlation Between Emean and ALBI Score in Patients with Increased AST. Emean, mean of liver stiffness; AST, aspartate aminotransferase; HBV, hepatitis B virus; Pos group, HBV-DNA positive group; Neg group, HBV-DNA negative group; CP, Child-Pugh; ALBI, albumin-bilirubin.