

Supplementary table 1. Univariate and multivariate logistic regression model assessing independent predictors associated with the SSM> 40.9 kPa (as the indicator of presence of critical varices) in our cohort of patient (N=112). **Abbreviations:** ALBI: albumin-bilirubin score; ALT: alanine aminotransferase; AST: aspartate aminotransferase; APRI: AST to Platelet Ratio Index; BMI: body mass index; CAP: continuous attenuation parameter; dB/m: decibels per meter; CI: confidence interval; ECOG: Eastern Cooperative Oncology Group; FIB-4: Fibrosis-4; GGT: gamma glutamyl transferase; g/L: grams per liter; INR: international normalised ratio; IQR: interquartile range; kPa: kilopascal; LSM: liver stiffness measurement; M: median; MELD: model of end-stage liver disease; µmol/L: micromoles per liter; mmol/L: millimoles per liter; N: number; MASLD: Metabolic dysfunction-associated steatotic liver disease; PBC: primary biliary cholangitis; SSM: spleen stiffness measurement; U/L: units per liter

Dependent variable: SSM>40.9 kPa	Odds ratio (univariate)	95% CI
Independent variables		
Age, years, median [IQR]	1.012	0.979-1.046
Age at time of diagnosis, years, median [IQR]	1.005	0.968-1.044
Male sex	3.312	1.329-8.251
BMI, kg/m ² , median [IQR]	1.040	0.956-1.132
ECOG		
0	Ref.	
1	3.096	0.612-15.658
2	0.885	0.054-14.549
Obesity (BMI>30 kg/m ²)	1.731	0.745-4.032
Arterial hypertension	0.759	0.350-1.645
Hyperlipidemia	0.757	0.325-1.755
Diabetes type II	1.128	0.522-2.437
Charlson Comorbidity Index	1.667	0.982-1.386
Etiology- Alcohol	1.318	0.620-2.803
Etiology- MASLD	0.840	0.344-2.049
Esophageal varices	16.260	6.137-43.084
Critical varices	26.400	3.407-204.562
Leukocytes, G/L, median [IQR]	0.756	0.625-0.914
Neutrophils, G/L, median [IQR]	0.749	0.590-0.950
Lymphocytes, G/L, median [IQR]	0.286	0.147-0.568

Neutrophile to lymphocyte ratio, median [IQR]	1.150	0.872-1.516
Hemoglobin, g/L, median [IQR]	0.993	0.976-1.011
Platelets, G/L, median [IQR]	0.982	0.974-0.990
INR, median [IQR]	7.494	1.252-44.856
Bilirubin, μ mol/L, median [IQR]	1.008	0.989-1.026
Creatinine, μ mol/L, median [IQR]	1.001	0.983-1.019
Sodium, U/L, median [IQR]	1.078	0.941-1.235
AST, U/L, median [IQR]	1.002	0.996-1.009
ALT, U/L, median [IQR]	0.999	0.989-1.008
GGT, U/L, median [IQR]	1.000	0.999-1.001
Albumins, g/L, median [IQR]	0.865	0.803-0.932
Child Pugh score, points, median [IQR]	1.363	0.937-1.981
MELD, points, median [IQR]	1.092	0.979-1.218
FIB-4, points, median [IQR]	1.359	1.133-1.630
APRI, points, median [IQR]	1.474	1.008-2.154
ALBI, points, median [IQR]	3.934	1.915-8.084
Spleen length, mm, median [IQR]	1.039	1.018-1.060
LSM, kPa, median [IQR]	1.068	1.036-1.102
CAP, dB/m, median [IQR]	0.998	0.992-1.004

Supplementary table 2. Univariate and multivariate logistic regression model assessing independent predictors associated with the SSM> 41.8 kPa (as the indicator of presence of critical varices) using old Fibroscan software (N=51). **Abbreviations:** ALBI: albumin-bilirubin score; ALT: alanine aminotransferase; AST: aspartate aminotransferase; APRI: AST to Platelet Ratio Index; BMI: body mass index; CAP: continuous attenuation parameter; dB/m: decibels per meter; CI: confidence interval; ECOG: Eastern Cooperative Oncology Group; FIB-4: Fibrosis-4; GGT: gamma glutamyl transferase; g/L: grams per liter; INR: international normalised ratio; IQR: interquartile range; kPa: kilopascal; LSM: liver stiffness measurement; M: median; MELD: model of end-stage liver disease; μ mol/L: micromoles per liter; mmol/L: millimoles per liter; N: number; MASLD: Metabolic dysfunction-associated steatotic liver disease; PBC: primary biliary cholangitis; SSM: spleen stiffness measurement; U/L: units per liter

Dependent variable: SSM>41.8 kPa	Odds ratio (univariate)	95% CI
Independent variables		
Age, years, median [IQR]	1.013	0.968-1.061
Age at time of diagnosis, years, median [IQR]	1.007	0.950-1.067
Male sex	3.231	0.776-13.446
BMI, kg/m ² , median [IQR]	1.118	0.956-1.308
ECOG 0 1 2	Ref. 2.16 Not enough data	0.207-22.489
Obesity (BMI>30 kg/m ²)	3.117	0.745-13.037
Arterial hypertension	0.731	0.229-2.334
Hyperlipidemia	0.615	0.110-3.427
Diabetes type II	0.724	0.220-2.378
Charlson Comorbidity Index	1.031	0.822-1.293
Etiology- Alcohol	1.235	0.395-3.864
Etiology- MASLD	0.577	0.143-2.323
Esophageal varices	29.467	6.214-139.732
Critical varices	13.722	1.625-115.9
Leukocytes, G/L, median [IQR]	0.671	0.488-0.924
Neutrophils, G/L, median [IQR]	0.623	0.422-0.920
Lymphocytes, G/L, median [IQR]	0.349	0.139-0.882

Neutrophile to lymphocyte ratio, median [IQR]	0.963	0.645-1.436
Hemoglobin, g/L median [IQR]	1.023	0.993-1.053
Platelets, G/L, median [IQR]	0.977	0.965-0.989
INR, median [IQR]	2.239	0.265-18.942
Bilirubin, μ mol/L, median [IQR]	1.066	1.0001-1.137
Creatinine, μ mol/L, median [IQR]	0.966	0.936-0.998
Sodium, U/L, median [IQR]	1.204	0.961-1.509
AST, U/L, median [IQR]	1.008	0.989-1.027
ALT, U/L, median [IQR]	0.995	0.979-1.011
GGT, U/L, median [IQR]	1.0002	0.998-1.003
Albumins, g/L, median [IQR]	0.900	0.816-0.993
Child Pugh score, points, median [IQR]	1.792	0.883-3.638
MELD, points, median [IQR]	1.068	0.898-1.270
FIB-4, points, median [IQR]	1.731	1.146-2.612
APRI, points, median [IQR]	2.173	0.894-5.284
ALBI, points, median [IQR]	3.539	1.237-10.124
Spleen length, mm, median [IQR]	1.043	1.009-1.077
LSM, kPa, median [IQR]	1.077	1.023-1.136
CAP, dB/m, median [IQR]	0.997	0.989-1.005

Supplementary table 3. Univariate and multivariate logistic regression model assessing independent predictors associated with the SSM> 40.9 kPa (as the indicator of presence of critical varices) using new Fibroscan software (N=61). **Abbreviations:** ALBI: albumin-bilirubin score; ALT: alanine aminotransferase; AST: aspartate aminotransferase; APRI: AST to Platelet Ratio Index; BMI: body mass index; CAP: continuous attenuation parameter; dB/m: decibels per meter; CI: confidence interval; ECOG: Eastern Cooperative Oncology Group; FIB-4: Fibrosis-4; GGT: gamma glutamyl transferase; g/L: grams per liter; INR: international normalised ratio; IQR: interquartile range; kPa: kilopascal; LSM: liver stiffness measurement; M: median; MELD: model of end-stage liver disease; µmol/L: micromoles per liter; mmol/L: millimoles per liter; N: number; MASLD: Metabolic dysfunction-associated steatotic liver disease; PBC: primary biliary cholangitis; SSM: spleen stiffness measurement; U/L: units per liter

Dependent variable: SSM>40.9 kPa	Odds ratio (univariate)	95% CI
Independent variables		
Age, years, median [IQR]	0.999	0.952-1.049
Age at time of diagnosis, years, median [IQR]	1.003	0.955-1.054
Male sex	3.158	0.949-10.503
BMI, kg/m ² , median [IQR]	1.027	0.927-1.138
ECOG 0 1 2	Ref. 4.461 Not enough data	0.468-42.516
Obesity (BMI>30 kg/m ²)	1.467	0.480-4.477
Arterial hypertension	0.818	0.276-2.422
Hyperlipidemia	1.055	0.378-2.949
Diabetes type II	1.385	0.500-3.835
Charlson Comorbidity Index	1.366	1.031-1.810
Etiology- Alcohol	1.583	0.573-4.378
Etiology- MASLD	0.875	0.272-2.812
Esophageal varices	8.186	2.568-26.093
Critical varices	Insufficient data	
Leukocytes, G/L, median [IQR]	0.795	0.617-1.025
Neutrophils, G/L, median [IQR]	0.837	0.609-1.151

Lymphocytes, G/L, median [IQR]	0.186	0.064-0.544
Neutrophile to lymphocyte ratio, median [IQR]	1.372	0.922-2.042
Hemoglobin, g/L median [IQR]	0.973	0.948-0.998
Platelets, G/L, median [IQR]	0.979	0.965-0.992
INR, median [IQR]	75.146	2.502- 2256.494
Bilirubin, $\mu\text{mol/L}$, median [IQR]	1.005	0.987-1.024
Creatinine, $\mu\text{mol/L}$, median [IQR]	1.019	0.991-1.048
Sodium, U/L, median [IQR]	0.969	0.809-1.163
AST, U/L, median [IQR]	1.002	0.996-1.008
ALT, U/L, median [IQR]	0.997	0.986-1.009
GGT, U/L, median [IQR]	1.0001	0.998-1.002
Albumins, g/L, median [IQR]	0.827	0.736-0.928
Child Pugh score, points, median [IQR]	1.249	0.809-1.927
MELD, points, median [IQR]	1.146	0.986-1.332
FIB-4, points, median [IQR]	1.337	1.069-1.674
APRI, points, median [IQR]	1.347	0.867-2.092
ALBI, points, median [IQR]	4.659	1.683- 12.894
Spleen length, mm, median [IQR]	1.046	1.015-1.078
LSM, kPa, median [IQR]	1.079	1.033-1.127
CAP, dB/m, median [IQR]	0.996	0.986-1.007