**Supplementary Table 6. Comparison of liver cirrhosis and hepatocellular patients with and without sarcopenia matching backgrounds using the Propensity Score**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | All patients with liver cirrhosis and HCC |  |  | Patients with liver cirrhosis (Child-Pugh A) and HCC  |  |
|  | Sarcopenia (-) | Sarcopenia (+) |  |  |  | Sarcopenia (-) | Sarcopenia (+) |  |  |
| Mean ± S.D. | N = 115 | N = 115 | *p-*value | 　 | 　 | N = 110 | N = 110 | *p-*value | 　 |
| Age, years  | 73.1 | ± | 8.5 | 73.1 | ± | 10.4 | 0.9724 |  |  | 73.1 | ± | 8.6 | 74.1 | ± | 9.8 | 0.3961 |  |
| Gender, N | 16/99 | 16/99 | 1.0000 |  |  | 13/97 | 11/99 | 0.6652 |  |
| F/M (%) | (14/86) | (16/86) |  |  |  | (12/88) | (10/90) |  |  |
| Etiology, N | 40/8/34/22/11 | 38/17/26/21/13 | 0.6289 |  |  | 40/12/25/22/11 | 34/20/29/20/7 | 0.7230 |  |
| HCV/HBV/alcohol/MASLD/others (%) | (35/7/30/19/9) | (33/15/23/18/11) |  |  |  | (36/11/23/20/10) | (31/18/26/18/7) |  |  |
| BCLC staging, N | 62/47/6 | 62/46/7 | 0.9571 |  |  | 60/45/5 | 61/45/4 | 0.9420 |  |
| A/B/C (%) | (54/41/5) | (54/40/6) |  |  |  | (54/41/5) | (55/41/4) |  |  |
| Child-Pugh grade, N | 105/9/1 | 106/8/1 | 0.9687 |  |  | 110/0/0 | 110/0/0 | 1.0000 |  |
| A/B/C (%) | (91/8/1) | (92/7/1) |  |  |  | (100/0/0) | (100/0/0) |  |  |
| T-Bil, mg/dL | 1.2 | ± | 0.6 | 1.0 | ± | 0.5 | 0.0389 | \* |  | 1.1 | ± | 0.4 | 1.0 | ± | 0.4 | 0.0240 | \* |
| AST, U/L | 34.0 | ± | 17.9 | 32.4 | ± | 20.5 | 0.5360 |  |  | 31.0 | ± | 13.5 | 29.4 | ± | 16.4 | 0.4273 |  |
| ALT, U/L | 28.6 | ± | 15.6 | 22.7 | ± | 15.4 | 0.0044 | \* |  | 27.2 | ± | 15.0 | 20.5 | ± | 12.6 | 0.0004 | \* |
| Albumin, g/dL | 3.7 | ± | 0.4 | 3.6 | ± | 0.5 | 0.4494 |  |  | 3.8 | ± | 0.4 | 3.7 | ± | 0.4 | 0.4575 |  |
| PT-INR | 1.0 | ± | 0.1 | 1.0 | ± | 0.1 | 0.5949 |  |  | 1.0 | ± | 0.1 | 1.0 | ± | 0.1 | 0.3787 |  |
| PLT, x103/μL | 139.9 | ± | 52.1 | 145.3 | ± | 57.4 | 0.4575 |  |  | 142.9 | ± | 50.4 | 148.4 | ± | 62.2 | 0.4692 |  |
| Sodium, mEq/L | 140.7 | ± | 1.9 | 140.4 | ± | 3.2 | 0.4835 |  |  | 141.0 | ± | 1.9 | 140.5 | ± | 2.9 | 0.1994 |  |
| Creatinine, mg/dL | 1.0 | ± | 0.9 | 1.1 | ± | 1.2 | 0.4979 |  |  | 1.0 | ± | 0.8 | 1.2 | ± | 1.3 | 0.2368 |  |
| α-fetoprotein, ng/mL | 1414.0 | ± | 8158.8 | 1381.8 | ± | 10250.3 | 0.9791 |  |  | 1447.6 | ± | 8265.5 | 1140.9 | ± | 9936.7 | 0.8037 |  |
| DCP, mAU/mL | 3798.1 | ± | 37966.7 | 5582.6 | ± | 27369.6 | 0.6861 |  |  | 5734.0 | ± | 42902.4 | 3076.1 | ± | 16361.5 | 0.5476 |  |
| ALBI score | -2.3 | ± | 0.4 | -2.3 | ± | 0.5 | 0.9131 |  |  | -2.4 | ± | 0.4 | -2.4 | ± | 0.4 | 0.9878 |  |
| FIB-4 index | 4.1 | ± | 2.6 | 4.0 | ± | 2.4 | 0.8872 |  |  | 3.7 | ± | 2.4 | 3.8 | ± | 1.8 | 0.9033 |  |
| MELD-Na | 8.5 | ± | 3.1 | 8.6 | ± | 3.6 | 0.8963 |  |  | 8.3 | ± | 2.8 | 8.7 | ± | 3.9 | 0.3624 |  |
| BCAA, nmol/mL | 490.8 | ± | 98.0 | 492.6 | ± | 105.8 | 0.8927 |  |  | 506.3 | ± | 100.5 | 484.1 | ± | 91.4 | 0.0985 |  |
| Triglyceride, mg/dL | 116.2 | ± | 54.3 | 96.8 | ± | 43.3 | 0.0031 |  |  | 114.1 | ± | 51.1 | 96.1 | ± | 40.1 | 0.0041 |  |
| Total Cholesterol, mg/dL | 168.9 | ± | 31.5 | 162.5 | ± | 33.3 | 0.1397 |  |  | 169.7 | ± | 32.1 | 160.9 | ± | 31.7 | 0.0412 |  |
| Total FAs, μg/mL | 2929.1 | ± | 595.7 | 2711.0 | ± | 569.5 | 0.0049 | \* |  | 2951.2 | ± | 580.0 | 2686.4 | ± | 527.2 | 0.0005 | \* |
| SFAs, μg/mL | 956.8 | ± | 208.7 | 871.0 | ± | 189.4 | 0.0013 | \* |  | 961.5 | ± | 204.3 | 858.3 | ± | 171.8 | < 0.0001 | \* |
| Relative amount, % | 32.6 | ± | 1.7 | 32.1 | ± | 1.2 | 0.0013 | \* |  | 32.5 | ± | 1.7 | 31.9 | ± | 1.2 | < 0.0001 | \* |
| MUFAs, μg/mL | 711.2 | ± | 197.4 | 644.2 | ± | 180.7 | 0.0078 | \* |  | 709.8 | ± | 190.6 | 636.9 | ± | 177.9 | 0.0037 | \* |
| Relative amount, % | 24.1 | ± | 3.0 | 23.6 | ± | 3.4 | 0.0078 | \* |  | 23.9 | ± | 3.0 | 23.5 | ± | 3.4 | 0.0037 | \* |
| n-3 PUFAs, μg/mL | 258.3 | ± | 89.7 | 218.1 | ± | 73.4 | 0.0003 | \* |  | 257.2 | ± | 86.8 | 217.1 | ± | 63.5 | < 0.0001 | \* |
| Relative amount, % | 8.8 | ± | 2.4 | 8.1 | ± | 2.3 | 0.0307 | \* |  | 8.7 | ± | 2.2 | 8.2 | ± | 2.2 | 0.0803 |  |
| n-6 PUFAs, μg/mL | 967.1 | ± | 184.3 | 940.6 | ± | 202.2 | 0.3014 |  |  | 986.5 | ± | 185.0 | 937.6 | ± | 193.3 | 0.0563 |  |
| Relative amount, % | 33.3 | ± | 3.8 | 34.8 | ± | 3.5 | 0.0016 | \* |  | 33.7 | ± | 3.8 | 35.0 | ± | 3.6 | 0.0070 | \* |
| CRP, mg/dL | 0.3 | ± | 0.4 | 0.4 | ± | 0.7 | 0.0643 |  |  | 0.3 | ± | 0.4 | 0.4 | ± | 0.7 | 0.0494 | \* |
| SMI, cm2/m2 | 48.7 | ± | 5.9 | 36.5 | ± | 3.9 | < 0.0001 | \* | 　 | 48.2 | ± | 5.5 | 36.2 | ± | 4.1 | < 0.0001 | \* |

S.D., standard deviation; HCV, hepatitis C virus; HBV, hepatitis B virus; MASLD, metabolic dysfunction-associated steatotic liver disease; BCLC, Barcelona Clinical Liver Cancer; HCC, hepatocellular carcinoma; T-Bil, total bilirubin; AST, aspartate aminotransferase; ALT, alanine aminotransferase; PT, prothrombin time; PLT, platelet; DCP, des-γ-carboxy prothrombin; ALBI, albumin-bilirubin; FIB-4, fibrosis-4 score; MELD, the model of end-stage liver disease; BCAA, branched-chain amino acid; FA, fatty acid; SFA, saturated fatty acid; MUFA, monounsaturated fatty acid; PUFA, polyunsaturated fatty acid; CRP, C-reactive protein; SMI, skeletal muscle mass index.

\*: *p*-value < 0.0