

# Effect of Handgrip Strength on Clinical Outcomes in Patients with Hepatocellular Carcinoma Treated with Lenvatinib

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**Table S1.** Comparison of baseline characteristics in patients in handgrip strength or muscle depletion.

|                            | Low Handgrip Strength (N=25) | High Handgrip Strength (N=28) | <i>p</i> value | Muscle Depletion (N=26) | Non-Muscle Depletion (N=27) | <i>p</i> value |
|----------------------------|------------------------------|-------------------------------|----------------|-------------------------|-----------------------------|----------------|
| Age (year)                 | 80.0(71.0-83.5)              | 70.0(66.3-73.0)               | <0.001         | 76.5(70.0-82.0)         | 70.0(67.0-77.0)             | 0.039          |
| Gender Male/Female         | 15/10                        | 26/2                          | 0.004          | 16/10                   | 25/2                        | <0.001         |
| Etiology HBV/HCV/Others    | 0/14/11                      | 7/6/15                        | 0.003          | 4/12/10                 | 3/8/16                      | 0.303          |
| Child-Pugh class A/B       | 20/5                         | 22/6                          | 0.898          | 23/3                    | 19/8                        | 0.105          |
| ALBI score                 | -2.05(-2.29 to -1.81)        | -2.01(-2.42 to -1.67)         | 0.859          | -2.06(-2.34 to -1.87)   | -1.97(-2.36 to -1.58)       | 0.625          |
| mALBI grade 1/2a/2b/3      | 2/5/16/2                     | 3/8/15/2                      | 0.474          | 2/7/16/1                | 3/6/15/3                    | 0.805          |
| BCLC A/B/C/D               | 1/10/14/0                    | 0/17/11/0                     | 0.387          | 0/12/14/0               | 1/15/11/0                   | 0.252          |
| Tumor number               | 6.0(2.5-10.0)                | 3.5(1.3-6.8)                  | 0.110          | 3.0(1.0-7.0)            | 6.0(2.0-10.0)               | 0.074          |
| Tumor size (mm)            | 30.0(19.5-39.0)              | 27.0(15.3-39.3)               | 0.402          | 29.0(19.5-43.3)         | 26.0(16.0-37.0)             | 0.203          |
| Macrovascular invasion -/+ | 18/7                         | 24/4                          | 0.219          | 21/5                    | 21/6                        | 0.788          |
| Extrahepatic spread -/+    | 16/9                         | 22/6                          | 0.240          | 17/9                    | 21/6                        | 0.317          |

|                           |       |       |       |       |       |       |
|---------------------------|-------|-------|-------|-------|-------|-------|
| Low handgrip strength +/- | -     | -     | -     | 11/15 | 17/10 | 0.132 |
| Muscle depletion +/-      | 10/15 | 17/11 | 0.132 | -     | -     | -     |

HBV, Hepatitis B virus; HCV, Hepatitis C virus; ALBI, Albumin-Bilirubin; mALBI, modified ALBI; BCLC, Barcelona Clinic Liver Cancer staging system

**Table S2.** Comparison of baseline characteristics in patients with sarcopenia and non-sarcopenia.

|                            | Sarcopenia(N=15)      | Non-sarcopenia(N=38)  | <i>p</i> value |
|----------------------------|-----------------------|-----------------------|----------------|
| Age (year)                 | 81.0(75.0-85.0)       | 70.5(67.0-76.3)       | <0.001         |
| Gender Male/Female         | 7/8                   | 34/4                  | <0.001         |
| Etiology HBV/HCV/Others    | 0/9/6                 | 7/11/20               | 0.053          |
| Child-Pugh class A/B       | 13/2                  | 29/9                  | 0.403          |
| ALBI score                 | -2.05(-2.31 to -1.71) | -2.01(-2.37 to -1.75) | 0.969          |
| mALBI grade 1/2a/2b/3      | 1/4/9/1               | 4/9/22/3              | 0.879          |
| BCLC A/B/C/D               | 0/6/9/0               | 1/21/16/0             | 0.208          |
| Tumor number               | 4.0(1.0-10.0)         | 4.5(2.0-8.0)          | 0.968          |
| Tumor size (mm)            | 27.0(21.0-86.0)       | 29.0(15.8-38.5)       | 0.323          |
| Macrovascular invasion +/- | 10/5                  | 32/6                  | 0.156          |
| Extrahepatic spread +/-    | 10/5                  | 28/10                 | 0.609          |

HBV, Hepatitis B virus; HCV, Hepatitis C virus; ALBI, Albumin-Bilirubin; mALBI, modified ALBI; BCLC, Barcelona Clinic Liver Cancer staging system