**Supplemental Table S1. Associations between study variables and all-cause mortality in patients with PAD**

|  | Univariate analysis  HR (95% CI) | Multivariate analysis  aHR (95% CI) |
| --- | --- | --- |
| **Low muscle mass** |  |  |
| No | ref | ref |
| Yes | **1.73 (1.32-2.27)** | **1.31 (1.03-1.65)** |
| **PAD severity by ABI** |  |  |
| Mild | ref | ref |
| Moderate to severe | **1.46 (1.07-1.99)** | 0.82 (0.63-1.07) |
| Severe | **2.81 (1.94-4.09)** | **1.94 (1.28-2.94)** |
| **BMI, categories** |  |  |
| Normal or below | ref | ref |
| Overweight | 0.90 (0.63-1.30) | 0.86 (0.61-1.21) |
| Obese | **0.56 (0.37-0.86)** | 0.88 (0.59-1.30) |
| **Age (years)** | **1.07 (1.05-1.08)** | **1.08 (1.06-1.10)** |
| **Sex** |  |  |
| Male | ref | ref |
| Female | **0.58 (0.46-0.74)** | **0.66 (0.48-0.91)** |
| **Race** |  |  |
| Hispanic | ref | ref |
| Non-Hispanic White | **1.60 (1.14-2.24)** | **1.62 (1.13-2.32)** |
| Non-Hispanic Black | 1.01 (0.66-1.54) | **1.91 (1.20-3.04)** |
| Other | 1.01 (0.25-4.06) | 0.97 (0.40-2.32) |
| **Poverty income ratio** |  |  |
| Not poor | ref | - |
| Poor | 0.96 (0.66-1.39) | - |
| **Education** |  |  |
| High school and above | ref | - |
| < High school | 1.27 (0.98-1.65) | - |
| **Married/live with partner** |  |  |
| No | ref | - |
| Yes | 0.83 (0.62-1.11) | - |
| **Smoking status** |  |  |
| Never | ref | ref |
| Former | **1.70 (1.23-2.36)** | **1.48 (1.12-1.95)** |
| Current | **1.42 (0.97-2.06)** | **2.46 (1.74-3.47)** |
| **Excessive drinking** |  |  |
| No | ref | - |
| Yes | 1.32 (0.85-2.07) | - |
| **Sedentary time (hours)** |  |  |
| < 3 | ref | - |
| 3-6 | 1.30 (0.99-1.68) | - |
| 6+ | 1.33 (0.32-5.60) | - |
| **Diabetes** |  |  |
| No | ref |  |
| Yes | 1.28 (0.99-1.66) |  |
| **Hypertension** |  |  |
| No | ref | ref |
| Yes | **1.82 (1.40-2.38)** | 1.38 (0.96-1.99) |
| **SBP (mmHg)** |  |  |
| < 127 | ref | ref |
| 127-140 | 0.88 (0.59-1.29) | 1.07 (0.71-1.61) |
| 141-160 | 1.25 (0.90-1.74) | 1.18 (0.81-1.73) |
| > 160 | **1.59 (1.15-2.22)** | 1.04 (0.69-1.56) |
| **Hyperlipidemia** |  |  |
| No | ref | - |
| Yes | 1.13 (0.84-1.53) | - |
| **CVD** |  |  |
| No | ref | ref |
| Yes | **2.21 (1.67-2.91)** | **1.64 (1.21-2.23)** |
| **CKD** |  |  |
| No | ref | ref |
| Yes | **2.17 (1.60-2.95)** | 1.32 (0.99-1.75) |
| **hs-CRP (mg/dL)** |  |  |
| Normal | ref | - |
| Elevated | 1.02 (0.69-1.52) | - |
| **Statin use** |  |  |
| No | ref | - |
| Yes | 1.17 (0.89-1.54) | - |
| **Antiplatelet use** |  |  |
| No | ref | - |
| Yes | 1.26 (0.76-2.09) | - |
| **ACEI/ARB use** |  |  |
| No | ref | - |
| Yes | 1.30 (0.97-1.74) | - |

Subjects with missing each laboratory variables were excluded from the analyses. P < 0.05 indicates statistical significance between groups. Multivariate analysis adjusted for PAD severity, age, sex, BMI in categories, race, smoking, diabetes, hypertension, SBP, CVD, and CKD.

ABI, ankle-brachial index; ACEI, angiotensin converting enzyme inhibitor; ALM, appendicular lean mass; ARB, angiotensin receptor blockers; BMI, body mass index; CI, confidence interval; CKD, chronic kidney disease; CVD, cardiovascular disease; eGFR, estimated glomerular filtration rate; HR, hazard ratio; aHR, adjusted HR; hs-CRP, high-sensitivity C-reactive protein; PAD, peripheral artery disease; SBP, systolic blood pressure.

**Supplemental Table S2. Associations between study variables and cardiovascular disease mortality in patients with PAD**

|  | Univariate analysis  HR (95% CI) | Multivariate analysis  aHR (95% CI) |
| --- | --- | --- |
| **Low muscle mass** |  |  |
| No | ref | ref |
| Yes | **1.82 (1.02-3.23)** | 1.26 (0.68-2.35) |
| **PAD severity by ABI** |  |  |
| Mild | ref | ref |
| Moderate to severe | 1.26 (0.76-2.07) | **0.56 (0.32-0.98)** |
| Severe | **4.59 (2.50-8.42)** | **2.38 (1.05-5.39)** |
| **BMI, categories** |  |  |
| Normal or below | ref | - |
| Overweight | 0.99 (0.56-1.75) | - |
| Obese | 0.68 (0.36-1.28) | - |
| **Age (years)** | **1.05 (1.03-1.08)** | **1.05 (1.001-1.10)** |
| **Sex** |  |  |
| Male | ref | ref |
| Female | **0.52 (0.31-0.86)** | **0.55 (0.32-0.94)** |
| **Race** |  |  |
| Hispanic | ref | - |
| Non-Hispanic White | 1.40 (0.69-2.84) | **-** |
| Non-Hispanic Black | 0.72 (0.35-1.48) | **-** |
| Other | 1.07 (0.12-9.79) | - |
| **Poverty income ratio** |  |  |
| Not poor | ref | - |
| Poor | 1.34 (0.69-2.60) | - |
| **Education** |  |  |
| High school and above | ref | - |
| < High school | 1.29 (0.69-2.41) | - |
| **Married/live with partner** |  |  |
| No | ref | - |
| Yes | 1.20 (0.74-1.95) | - |
| **Smoking status** |  |  |
| Never | ref | ref |
| Former | **2.23 (1.19-4.20)** | 1.63 (0.93-2.87) |
| Current | 1.34 (0.74-2.44) | 1.51 (0.87-2.65) |
| **Excessive drinking** |  |  |
| No | ref | - |
| Yes | 0.75 (0.38-1.47) | - |
| **Sedentary time (hours)** |  |  |
| <3 | ref | - |
| 3-6 | 1.22 (0.81-1.82) | - |
| 6+ | 2.94 (0.41-20.99) | - |
| **Diabetes** |  |  |
| No | ref | ref |
| Yes | **2.04 (1.24-3.37)** | 1.48 (0.81-2.70) |
| **Hypertension** |  |  |
| No | ref | ref |
| Yes | **2.30 (1.19-4.46)** | 1.56 (0.66-3.71) |
| **SBP (mmHg)** |  |  |
| <127 | ref | ref |
| 127-140 | 0.70 (0.36-1.39) | 0.90 (0.39-2.04) |
| 141-160 | 1.12 (0.65-1.94) | 0.95 (0.47-1.91) |
| >160 | **1.83 (1.004-3.33)** | 0.95 (0.47-1.91) |
| **Hyperlipidemia** |  |  |
| No | ref | - |
| Yes | 1.59 (0.87-2.88) | - |
| **CVD** |  |  |
| No | ref | ref |
| Yes | **3.64 (2.35-5.64)** | **2.35 (1.40-3.96)** |
| **CKD** |  |  |
| No | ref | ref |
| Yes | **3.07 (1.81-5.21)** | **1.87 (1.18-2.96)** |
| **hs-CRP (mg/dL)** |  |  |
| Normal | ref | - |
| Elevated | 0.87 (0.43-1.77) | - |
| **Statin use** |  |  |
| No | ref | - |
| Yes | 1.21 (0.76-1.93) | - |
| **Antiplatelet use** |  |  |
| No | ref | - |
| Yes | 1.69 (0.80-3.55) | - |
| **ACEI/ARB use** |  |  |
| No | ref | - |
| Yes | 1.38 (0.79-2.42) | - |

Subjects with missing in each laboratory variables were excluded from the analyses. P < 0.05 indicates statistical significance between groups. Multivariate analysis adjusted for PAD severity, BMI in categories, age, sex, married/live with partner, hypertension, and CKD.

ABI, ankle-brachial index; ACEI, angiotensin converting enzyme inhibitor; ALM, appendicular lean mass; ARB, angiotensin receptor blockers; BMI, body mass index; CI, confidence interval; CKD, chronic kidney disease; CVD, cardiovascular disease; eGFR, estimated glomerular filtration rate; HR, hazard ratio; aHR, adjusted HR; hs-CRP, high-sensitivity C-reactive protein; PAD, peripheral artery disease; SBP, systolic blood pressure.

**Supplementary Table S3. Associations between low muscle strength (yes vs not no) and mortality in patients with** **PAD**

|  |  |
| --- | --- |
| Outcomes | aHR (95% CI) |
| **All-cause mortality a** | 0.92 (0.63-1.33) |
| **CVD mortality b** | 0.97 (0.31-3.04) |

BMI, body mass index; CI, confidence interval; CKD, chronic kidney disease; CVD, cardiovascular disease; aHR, adjusted hazard ratio.

Subjects with missing each laboratory variables were excluded from the analyses. P < 0.05 indicates statistical significance between groups.

a Adjusted for variables, including PAD severity, age, sex, BMI in categories, race, smoking, diabetes, hypertension, SBP, CVD, and CKD.

b Adjusted for variables, including PAD severity, age, sex, BMI in categories, married/live with partner, hypertension, and CKD.

**Supplemental Table S4. Associations between different muscle strength a with muscle mass status and all-cause and cardiovascular disease mortality**

|  | All-cause mortality b | Cardiovascular disease mortality c |
| --- | --- | --- |
|  | aHR (95% CI) | aHR (95% CI) |
| Normal muscle strength and normal muscle mass | ref | ref |
| Normal muscle strength and low muscle mass | 0.86 (0.21-3.58) | 0.87 (0.06-13.79) |
| Low muscle strength and low muscle mass | 1.34 (0.90-2.00) | **2.50 (1.12-5.60)** |

Subjects with missing laboratory variables were excluded from the analyses.

a Muscle strength was measured by knee extensor peak force.

b Adjusted for PAD severity, age, gender, BMI in categories, race, smoking, diabetes, hypertension, SBP, CVD, and CKD.

c Adjusted for PAD severity, BMI in categories, age, gender, married/live with partner, hypertension, and CKD.

aHR, adjusted hazard ratio; BMI, body mass index; CI, confidence interval; CKD, chronic kidney disease; CVD, cardiovascular disease; PAD, peripheral artery disease; SBP, systolic blood pressure.