Supplementary material

Protective Effect of High Body Mass Index in Elderly Critically Ill with Severe COVID-19 Pneumonia

Supplementary Table 1. Multivariate logistic regression models, backward method.

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| Variable in the model | OR | 95% CI | Statistics (*p*) |
| Logistic regression model of ICU mortality1(Full model − 2 Log Likelihood = 81.0, Chi-square *p* < 0.001) |
|  | Age, years | 1.212 | 1.015–1.446 | 0.033\* |
| BMI (≥30 kg/m2 = 1, <30 kg/m2 = 0) | 0.301 | 0.092–0.983 | 0.046\* |
| Lactate, mmol/L | 1.418 | 0.968–2.076 | 0.07 |
| C-reactive protein, mg/L | 1.006 | 1.001–1.011 | 0.018\* |
| Logistic regression model of ICU mortality2(Full model − 2 Log Likelihood = 82.6, Chi-square *p* < 0.001) |
|  | Age, years | 1.178 | 0.996–1.254 | 0.057 |
| BMI (≥30 kg/m2 = 1, <30 kg/m2 = 0) | 0.2734 | 0.088–0.846 | 0.024\* |
| Lactate, mmol/L | 1.407 | 0.981–2.017 | 0.06 |
| C-reactive protein, mg/L | 1.006 | 1.001–1.010 | 0.015\* |
| Logistic regression model of ICU mortality3(Full model − 2 Log Likelihood = 97.2, Chi-square *p* < 0.001) |
|  | Age, years | 1.099 | 0.986–1.225 | 0.087 |
| BMI (≥30 kg/m2 = 1, <30 kg/m2 = 0) | 0.332 | 0.116–0.952 | 0.043\* |
| Lactate, mmol/L | 1.442 | 0.988–2.105 | 0.058 |
| Mechanical ventilation (Yes = 1, No = 0) | 7.007 | 2.068–23.743 | 0.001\* |
| Logistic regression model of hospital mortality4(Full model − 2 Log Likelihood = 50.5, Chi-square *p* < 0.001) |
|  | Age, years | 1.517 | 1.176–1.957 | 0.0013\* |
| BMI (≥30 kg/m2 = 1, <30 kg/m2 = 0) | 0.196 | 0.039–0.977 | 0.047\* |
| Lactate, mmol/L | 6.711 | 2.330–19.327 | 0.001\* |
| Logistic regression model of hospital mortality5(Full model − 2 Log Likelihood = 67.9, Chi-square *p* < 0.001) |
|  | Age, years  | 1.163 | 1.009–1.341 | 0.038\* |
| BMI (≥30 kg/m2 = 1, <30 kg/m2 = 0) | 0.211 | 0.055–0.815 | 0.024\* |
| Lactate, mmol/L | 3.482 | 1.644–7.373 | 0.001\* |
| Mechanical ventilation (Yes = 1, No =0) | 9.449 | 2.032–43.936 | 0.004\* |
| History of arterial hypertension (Yes = 1, No = 0) | 0.284 | 0.075–1.083 | 0.065 |

Values are expressed as odds ratios along with corresponding 95% confidence intervals. \*Indicates a statistically significant difference between groups at the <0.05 level. 1Variables tested, but in the model (history of chronic kidney failure, chronic obstructive pulmonary disease, arterial hypertension). 2Variables tested, but in the model (partial pressure of oxygen at admission, creatinine at admission, history of chronic kidney failure, chronic obstructive pulmonary disease, arterial hypertension). 3Variables tested, but in the model (age, C-reactive protein at admission, history of chronic kidney failure, chronic obstructive pulmonary disease, arterial hypertension). 4Variables tested, but in the model (C-reactive protein at admission, history of chronic kidney failure, chronic obstructive pulmonary disease, arterial hypertension). 5Variables tested, but in the model (age, C-reactive protein at admission, history of chronic kidney failure, chronic obstructive pulmonary disease). Abbreviations: BMI, body mass index; CI, confidence interval; ICU, intensive care unit; OR, odds ratio.