Supplemental Digital Content 4.

Table. Univariate and multivariate linear regression model for independent determinants of NGAL.

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| Parameters | Univariate linear regression analysis | Multivariate linear regression analysis |
| B | 95% CI | P-value | B | 95% CI | P-value |
| Age | 0.003 | -0.011–0.017 | 0.68 |  |  |  |
| Female sex | -0.03 | -0.26–0.20 | 0.79 |  |  |  |
| Tachycardia | 0.22 | -0.017–0.43 | 0.034 | 0.17 | -0.037–0.38 | 0.11 |
| Non-renal SOFA | 0.068 | 0.018–0.12 | 0.009 | 0.023 | -0.039–0.084 | 0.46 |
| Diabetes Mellitus | -0.079 | -0.32–0.16 | 0.51 |  |  |  |
| Hypertension | 0.061 | -0.15–0.27 | 0.57 |  |  |  |
| Liver cirrhosis | -0.10 | -0.43–0.22 | 0.53 |  |  |  |
| Nephrotoxic drugs | 0.034 | -0.19–0.26 | 0.77 | 　 | 　 | 　 |
| Norepinephrine | 0.31 | 0.11–0.51 | 0.003 | 0.24 | 0.005–0.48 | 0.045 |
| Dopamine | 0.10 | -0.30–0.51 | 0.61 |  |  |  |
| Dobutamine | 0.67 | -0.05–1.40 | 0.067 |  |  |  |
| Continuous sedation | -0.011 | -0.22–0.20 | 0.92 |  |  |  |
| Continuous analgesia | -0.14 | -0.35–0.070 | 0.19 |  |  |  |
| Beta-blocker | -0.013 | -0.36–0.33 | 0.94 |  |  |  |
| Digoxin | -0.081 | -0.82–0.66 | 0.83 |  |  |  |
| Calcium-channel blocker | -0.65 | -1.68–0.37 | 0.21 |  |  |  |

B, Unstandardized beta coefficients; CI, Confidence interval; NGAL, Neutrophil gelatinase-associated lipocalin; SOFA, Sequential organ failure assessment.

NGAL level was log-transformed using the natural logarithm to the base *e*. SOFA score without the renal component was used as non-renal SOFA score. Among clinical determinants, only tachycardia, non-renal SOFA score, the use of norepinephrine were significantly associated with NGAL. Tachycardia failed to be an independent determinant of NGAL elevation in multivariate analysis.