Hyperglycemia and Thrombocytopenia
— Combinatorially Increase the Risk of Mortality in Patients With Acute Myocardial Infarction Undergoing Veno-Arterial Extracorporeal Membrane Oxygenation —

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**Supplementary Table 1.** Relationships between risks for all-cause mortality in each prognostic group in patients who underwent revascularization therapy (n=46).

HR: hazard ratio, 95%CI: 95% confidence intervals, P: probability.

|                | Number at risk | Number of deaths | HR      | 95% CI       | P vs Group 1' |
|----------------|----------------|------------------|---------|--------------|---------------|
| Group 1        | 19             | 9                | 1.00    | -            | -             |
| Group 2        | 21             | 19               | 2.37    | (1.06, 5.29) | 0.036         |
| Group 3        | 6              | 6                | 9.02    | (2.87, 28.36)| <0.001        |

**Supplementary Table 2.** Relationships between risks for all-cause mortality in each prognostic group in patients who did not undergo revascularization therapy (n=17).

HR: hazard ratio, 95%CI: 95% confidence intervals, P: probability.

|                | Number at risk | Number of deaths | HR   | 95% CI        | P vs Group 1' |
|----------------|----------------|------------------|------|---------------|---------------|
| Group 1        | 6              | 4                | 1.00 | -             | -             |
| Group 2        | 4              | 4                | 1.75 | (0.44, 7.04)  | 0.428         |
| Group 3        | 7              | 7                | 2.48 | (0.70, 8.80)  | 0.161         |
Supplementary Table 3. Combinatorial effect of stress hyperglycemia and thrombocytopenia in a Cox model using two factors as independent risks (n=63).

Estimated HR of Group 4’ is significantly increased compared to that of Group 2’ or Group 3’ (P=0.0248 vs Group 2’ and P=0.001 vs Group 3’, by Wald test). Group 1’: subjects with glucose ≤213 (mg/dl) and platelets ≥14.1 (10^4/μl). Group 2’: subjects with glucose ≤213 (mg/dl) and platelets ≤14.1 (10^4/μl). Group 3’: subjects with glucose ≥213 (mg/dl) and platelets ≥14.1 (10^4/μl). Group 4’: subjects with glucose ≥213 (mg/dl) and platelets ≤14.1 (10^4/μl). HR: Hazard ratio, 95%CI: 95% confidence intervals, P: probability.

|                | Number at risk | Number of deaths | HR    | 95% CI          | P vs Group 1’ |
|----------------|----------------|------------------|-------|-----------------|---------------|
| Group 1’       | 17             | 7                | 1.00  | -               | -             |
| Group 2’       | 8              | 6                | 3.65  | (1.22, 10.95)   | 0.021         |
| Group 3’       | 25             | 23               | 3.40  | (1.45, 7.97)    | 0.005         |
| Group 4’       | 13             | 13               | 11.78 | (4.31, 32.22)   | <0.001        |

Supplementary Table 4. Contingency table indicating proportions of subjects with no cardiac arrest or varying location (IHCA or OHCA) of cardiac arrest in indicated prognostic groups.

The number of subjects is indicated in each column. IHCA, In-hospital cardiac arrest; OHCA, out-of-hospital cardiac arrest. Probability=0.817, by Fisher’s exact test.

|                | No cardiac arrest | IHCA | OHCA | Total |
|----------------|-------------------|------|------|-------|
| Group 1        | 2 (8.0%)          | 11 (44.0%) | 12 (48.0%) | 25 (100%) |
| Group 2        | 1 (4.0%)          | 14 (56.0%) | 10 (40.0%) | 25 (100%) |
| Group 3        | 0 (0.0%)          | 6 (46.2%)  | 7 (53.9%)  | 13 (100%)  |
Supplementary Figure. Study concept. To assess associations between risk factors and patient mortality risk after start of VA-ECMO, we evaluated 43 routine clinical parameters during the period between the first medical exam at the hospital and the start of VA-ECMO (1). We then selected variables evaluated as significant by a univariate Cox proportional hazard (PH) model and conducted exploratory assessment of associations between those parameters and patients’ all-cause mortality using survival tree analysis (2).