**Table 1. Characteristics of patients with acute coronary syndrome**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Parameter, Me [25%; 75%]** | **Study group** | | | **P value** |
| **UA (n = 50)** | **STEMI (n = 107)** | **Non-STEMI (n = 45)** |
| Age, years | 63 [56; 73] | 63 [56; 71]\* | 68 [61; 78]\* | 0.045\*\* |
| SBP, mmHg | 125 [120; 140] | 130 [120; 140] | 130 [115; 150] | 0.865 |
| DBP, mmHg | 80 [70; 85] | 80 [70; 80] | 80 [70; 90] | 0.254 |
| HR, bpm | 82 [72; 92] | 80 [70; 90] | 84 [70; 100] | 0.41 |
| BR per minute | 18 [17; 20] | 18 [18; 20] | 18 [18; 20] | 0.584 |
| No oxygen support required, % | 95 [92; 96] | 95 [92; 96] | 94 [91; 96] | 0.581 |
| Charlson multimorbidity index, scores | 4 [3; 6]† | 4 [3; 6]\* | 6 [5; 7]\*, † | < 0.001\*\* |
| Duration of hospital stay, days | 10 [7; 14]† | 13 [9; 19] | 13 [10; 20]† | 0.034\*\* |

BR, breathing rate; DBP, diastolic blood pressure; HR, heart rate; non-STEMI, myocardial infarction without ST segment elevation; SBP, systolic blood pressure; STEMI, myocardial infarction with ST segment elevation; UA, unstable angina

\* The difference between the STEMI and non-STEMI groups is significant (Mann-Whitney test with Bonferroni adjustment)

\*\* The difference between three groups is significant (Kruskall-Wallis test)

† The difference between the UA and non-STEMI groups is significant (Mann-Whitney test with Bonferroni adjustment)

**Table 2. Clinical signs and symptoms of COVID-19 in the patient groups with acute coronary syndrome**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Symptom/sign** | **Patient number, N (%)** | | | **P value** |
| UA (n = 50) | STEMI (n = 107) | Non-STEMI (n = 45) |
| Fever | 22 (44)\* | 18 (17)\* | 10 (22) | χ2 = 13.712  2 d.f.  p < 0.001\*\* |
| Body temperature above 37 °C | 14 (28) | 19 (18) | 10 (22) | χ2 = 2.164  2 d.f.  p = 0.339 |
| Dry cough | 18 (36)\* | 19 (18)\* | 14 (31) | χ2 = 7.064  2 d.f.  p = 0.029\*\* |
| Productive cough | 6 (12) | 13 (12) | 7 (16) | χ2 = 0.373  2 d.f.  p = 0.83 |
| Asthenia | 39 (78) | 86 (80) | 36 (80) | χ2 = 0.122  2 d.f.  p = 0.941 |
| Dyspnea | 22 (44) | 48 (45) | 25 (56) | χ2 = 1.700  2 d.f.  p = 0.428 |
| Shortness of breath | 22 (44) | 52 (49) | 28 (62) | χ2 = 3.474  2 d.f.  p = 0.176 |
| Headache | 8 (16) | 6 (6) | 3 (7) | p = 0.094† |
| Rhinitis | 1 (2) | 2 (2) | 2 (4) | p = 0.715† |
| Anosmia | 3 (6) | 1 (1) | 2 (4) | p = 0.126† |
| Myalgia | 4 (8) | 5 (5) | 2 (4) | p = 0.706† |
| Fatigue | 1 (2) | 14 (13) | 6 (13) | p = 0.062† |
| Dizziness | 6 (12) | 16 (15) | 7 (16) | χ2 = 0.309  2 d.f.  p = 0.857 |

d.f., degrees of freedom; non-STEMI, myocardial infarction without ST segment elevation; STEMI, myocardial infarction with ST segment elevation; UA, unstable angina

\* The difference between the UA and STEMI groups is significant (Fischer’s exact test with Bonferroni adjustment)

\*\* The difference between three study groups is significant

† Fischer's exact test

**Table 3. Clinical symptoms and signs of acute coronary syndrome in the study groups**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Symptom/sign** | **Patient number, N (%)** | | | **P value** |
| **UA (n = 50)** | **STEMI (n = 107)** | **Non-STEMI (n = 45)** |
| Chest pain | 45 (90) | 103 (96) | 42 (93) | χ2 = 2.446  2 d.f.  p = 0.294 |
| Pain relieved by НТГ | 18 (36)\*, \*\* | 3 (3)\* | 0 (0)\*\* | p < 0.001†, ‡ |
| Pain irradiation | 21 (42) | 54 (50) | 22 (49) | χ2 = 0.996  2 d.f.  p = 0.608 |
| Cold sweat | 6 (12) | 23 (21) | 4 (9) | χ2 = 4.598  2 d.f.  p = 0.100 |
| BP decreased | 4 (8) | 9 (8) | 3 (7) | p = 1.000‡ |
| BP increased | 10 (20) | 14 (13) | 10 (22) | χ2 = 2.366  2 d.f.  p = 0.306 |

BP, blood pressure; d.f., degrees of freedom; non-STEMI, myocardial infarction without ST segment elevation; STEMI, myocardial infarction with ST segment elevation; UA, unstable angina

\* The difference between the UA and STEMI groups is significant (Fischer's exact test with Bonferroni adjustment)

\*\* The difference between the UA and non-STEMI groups is significant (Fischer's exact test with Bonferroni adjustment)

† The difference between three study groups is significant

‡ Fischer's exact test

**Table 4. The results of coronary angiography**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Parameter** | **Patient number, N (%)** | | | **P value** |
| **UA (n = 50)** | **STEMI (n = 107)** | **Non-STEMI (n = 45)** |
| CAG procedures performed | 33 (66)\*, \*\* | 93 (87)\* | 32 (71)\*\* | p = 0.005† |
| CAG rejected by the patient | 4 (8)\*, \*\* | 5 (5)\* | 1 (2)\*\* |
| CAG not performed | 13 (26)\*, \*\* | 9 (8)\* | 12 (27)\*\* |
| TCI | 1 (2)\*, \*\* | 82 (77)\*, ‡ | 23 (51)\*\*, ‡ | p < 0.001† |
| Coronary bypass graft recommended | 5 (10) | 4 (4) | 3 (7) | р = 0.226 |

CAG, coronary angiography; non-STEMI, myocardial infarction without ST segment elevation; PCI, percutaneous coronary intervention; STEMI, myocardial infarction with ST segment elevation; UA, unstable angina

\* The difference between the UA and STEMI groups is significant (Fischer's exact test with Bonferroni adjustment)

\*\* The difference between the UA and non-STEMI groups is significant (Fischer's exact test with Bonferroni adjustment)

† The difference between three study groups is significant

‡ The difference between STEMI and non-STEMI groups is significant (Fischer's exact test with Bonferroni adjustment)

**Table 5. Coronary artery stenosis and chronic occlusions**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Coronary artery** | **Patient number, N** | | | **P value** |
| **UA (n = 33)** | **STEMI (n = 93)** | **Non-STEMI (n = 32)** |
| LCA stenosis | 2 | 13 | 4 | p = 0.588‡ |
| RDA stenosis, including CO (in brackets) | 12 (0)\*, \*\* | 67 (0)\* | 23 (2)\*\* | χ2 = 14.491  4 d.f.  p < 0.001† |
| CA stenosis, including CО (in brackets) | 7 (1)\*\* | 45 (3) | 18 (3)\*\* | χ2 = 9.610  4 d.f.  p = 0.008† |
| RCA stenosis, including CO (in brackets) | 9 (1)\* | 64 (3)\* | 18 (3) | χ2 = 17.242  4 d.f.  p < 0.001† |

ADA, anterior descending artery; CA, circumflex artery; CO, chronic occlusion; d.f., degrees of freedom; LCA, left coronary artery; non-STEMI, myocardial infarction without ST segment elevation; RCA, right coronary artery; STEMI, myocardial infarction with ST segment elevation; UA, unstable angina

\* The difference between the UA and STEMI groups is significant (Pearson's χ2 with Bonferroni adjustment)

\*\* The difference between the UA and non-STEMI groups is significant (Pearson's χ2 with Bonferroni adjustment)

† The difference between three study groups is significant

‡ Fischer's exact test

**Table 6. Percentage of coronary artery stenoses**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Stenosis, % (Me [25%; 75%])** | **UA (n = 33)** | **STEMI (n = 93)** | **Non-STEMI (n = 32)** | **P value** |
| LCA | 60 [45; 75] | 50 [37,5; 55] | 80 [60; 85] | 0.113 |
| RDA | 70 [45; 80]\* | 90 [70; 100]\* | 95 [70; 100] | 0.013\*\* |
| CA | 70 [50; 90] | 75 [60; 92,5] | 90 [75; 99] | 0.200 |
| RCA | 50 [45; 80]\* | 90 [70; 100]\* | 90 [60; 100] | 0.018\*\* |

ADA, anterior descending artery; CA, circumflex artery; LCA, left coronary artery; non-STEMI, myocardial infarction without ST segment elevation; RCA, right coronary artery; STEMI, myocardial infarction with ST segment elevation; UA, unstable angina

\* The difference between the UA and STEMI groups is significant (Mann-Whitney test with Bonferroni adjustment)

\*\* The difference between three study groups is significant (Kruskall-Wallis test)

**Table 7. The infarction index artery/ the symptom index artery**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **IIA/SIA** | **Patient number, N (%)** | | | **P value** |
| **UA (n = 33)** | **STEMI (n = 93)** | **Non-STEMI (n = 32)** |
| No involvement | 21 (64)\*, \*\* | 5 (5)\*, † | 6 (19)\*\*, † | p < 0.001‡ |
| LCA | 0\*, \*\* | 1 (1)\*, † | 3 (9)\*\*, † |
| RDA | 7 (21)\*, \*\* | 42 (45)\*, † | 12 (37)\*\*, † |
| CA | 3 (9)\*, \*\* | 10 (11)\*, † | 5 (16)\*\*, † |
| RCA | 2 (6)\*, \*\* | 35 (38)\*, † | 6 (19)\*\*, † |

ADA, anterior descending artery; CA, circumflex artery; IIA, infarction index artery; LCA, left coronary artery; non-STEMI, myocardial infarction without ST segment elevation; RCA, right coronary artery; SIA, symptom index arterySTEMI, myocardial infarction with ST segment elevation; UA, unstable angina

\* The difference between the UA and STEMI groups is significant (Fischer's exact test with Bonferroni adjustment)

\*\* The difference between the UA and non-STEMI groups is significant (Fischer's exact test with Bonferroni adjustment)

† The difference between the non-STEMI and STEMI groups is significant (Fischer's exact test with Bonferroni adjustment)

‡ The difference between three study groups is significant (Fischer's exact test)

**Table 8. TIMI flow grade in the infarction index artery / symptom index artery before and after percutaneous coronary intervention and TIMI thrombus grade**

|  |  |  |  |
| --- | --- | --- | --- |
| **Parameter** | **Patient number, N (%)** | | **P value** |
| STEMI (n = 82) | Non-STEMI (n = 23) |
| Before PCI | | | |
| TIMI flow grade | | | |
| 0 | 46 (56) | 7 (30.5) | χ2 = 5,01  3 d.f.  р = 0,171 |
| 1 | 5 (6) | 3 (13) |
| 2 | 17 (21) | 6 (26) |
| 3 | 14 (17) | 7 (30.5) |
| After PCI | | | |
| TIMI flow grade | | | |
| 0 | 7 (9) | 2 (9) | р = 0.170\* |
| 3 | 75 (91) | 21 (91) |
| TIMI thrombus grade, Me [25%; 75%] | 3 [0; 5] | 0 [0; 4] | р = 0.023\*\* |

non-STEMI, myocardial infarction without ST segment elevation; PCI, percutaneous coronary intervention; STEMI, myocardial infarction with ST segment elevation; TIMI, Thrombolysis In Myocardial Infarction

\* Fischer's exact test

\*\* The difference is significant (Mann-Whitney test)