Table 1 General clinical data of NST-ACS coronary artery non-occluded group and occluded group

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Clinical data | Non-occlusion group  (41 cases) | Occlusion group  (72 cases) | T/x2 value | *P* value |
| Gender (Male) | 20（48.8%） | 47（65.3%） | 2.946 | 0.086 |
| Age | 59.7±9.5 | 61.8±9.7 | -1142 | 0.256 |
| BMI | 24.8±1.15 | 25.1±1.41 | -1.144 | 0.255 |
| History of smoking | 21（51.2%） | 49（68.1%） | 3.141 | 0.076 |
| Hypertension | 25（60.9%） | 54（75.0%） | 2.443 | 0.118 |
| Hyperlipidemia | 29（70.1%） | 60（83.3%） | 2.480 | 0.115 |
| Diabetes | 11（26.8%） | 28（38.9%） | 1.681 | 0.195 |

Table 2 Left ventricular global longitudinal strain (GLS) and myocardial work parameters

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Ultrasonic parameters | Non-occlusion group  (41 cases) | Occlusion group  (72 cases) | T/x2 value | *P* value |
| The overall longitudinal strain (GLS, %) | 16.7±2.8 | 11.9±2.9 | 8.589 | ＜0.001 |
| Overall work index (GWI, mmHg%) | 1665.64±270.4 | 1105±272.0 | 10.547 | ＜0.001 |
| Overall useful work (GCW, mmHg%) | 1860.8±264.3 | 1396±289.1 | 8.436 | ＜0.001 |
| Overall wasted work (GWW, mmHg%) | 70.3±30.2 | 177.2±77.0 | -8.515 | ＜0.001 |
| Overall work efficiency (GWE, %) | 0.948±0.19 | 0.867±0.056 | 8.964 | ＜0.001 |

Table 3 The parameters of single and combined forecast NST - ACS patients with the diagnosis of coronary artery occlusion

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Diagnostic parameters | The best cut-off value | Area under ROC curve (95%CI) | Sensitivity (%) | Specificity (%) | Accuracy (%) |
| The overall longitudinal strain (GLS, %) | ≤13 | 0.874（0.799- 0.928） | 72.2(50/72) | 85.4(35/41) | 75.2(85/113) |
| Overall work index (GWI, mmHg%) | ≤1430 | 0.915（0.848 - 0.959） | 87.5（63/72） | 80.5(33/41） | 85.0（96/113) |
| Overall useful work (GCW, mmHg%) | ≤1631 | 0.878（0.803 - 0.932） | 77.8（56/72） | 80.5(33/41) | 80.9(89/113) |
| Overall wasted work (GWW, mmHg%) | ＞93 | 0.872（0.796 - 0.925） | 83.3(60/72) | 85.4（35/41） | 84.1（95/113)） |
| Overall work efficiency (GWE, %) | ≤92 | 0.906（0.837 - 0.953） | 86.1(62/72) | 87.8(36/41） | 86.7(98/113) |
| GLS+GWI | - | 0.915(0.848 - 0.960) | 87.5（63/72） | 80.5(33/41） | 85.0（96/113) |
| GLS+GCW | - | 0.896(0.824 - 0.946) | 72.2(50/72) | 90.2(37/41) | 76.9(87/113) |
| GLS+GWW | - | 0.893(0.820 - 0.943) | 76.4（46/72） | 92.7（38/41） | 74.3（84/113） |
| GLS+GWE | - | 0.900(0.830 - 0.949) | 84.7（61/72） | 90.2（37/41） | 86.7（98/113） |
| GWI+GCW | - | 0.918(0.852 - 0.962) | 83.3（60/72） | 85.4 (35/41) | 84.1(95/113) |
| GWI+GWW | - | 0.937(0.875 - 0.974) | 88.9(64/72) | 85.4（35/41） | 87.6（99/113） |
| GWI+GWE | - | 0.939(0.877 - 0.975) | 77.8(56/72) | 95.1（39/41） | 83.2（94/113） |

Table 4 The ICC between each parameter in the observer and the observer

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Diagnostic parameters | Within the observer | | | Between observers | | |
| ICC | 95%CI | P | ICC | 95%CI | P |
| The overall longitudinal strain (GLS, %) | 0.975 | 0.940-0.990 | ＜0.001 | 0.960 | 0.903-0.984 | ＜0.001 |
| Overall work index (GWI, mmHg%) | 0.967 | 0.921-0.987 | ＜0.001 | 0.957 | 0.895-0.982 | ＜0.001 |
| Overall useful work (GCW, mmHg%) | 0.959 | 0.902-0.984 | ＜0.001 | 0.937 | 0.851-0.974 | ＜0.001 |
| Overall wasted work (GWW, mmHg%) | 0.969 | 0.924-0.987 | ＜0.001 | 0.949 | 0.877-0.979 | ＜0.001 |
| Overall work efficiency (GWE, %) | 0.983 | 0.957-0.993 | ＜0.001 | 0.950 | 0.881-0.980 | ＜0.001 |