

Table (1): Baseline characteristics of the AKI and non-AKI groups.

| | | Non-AKI group (n=368) | AKI group (n=32) | p-value |
|--------------------------|-------------------|-----------------------|----------------------|---------------|
| Age (years) | Mean ±SD Range | 62.45±13.9 32-96 | 59.78±13.86 40-86 | 0.302* |
| Gender, n (%) | Male | 228 (62%) | 19 (59.4%) | 0.782‡ |
| | Female | 140 (38%) | 13 (40.6%) | |
| Smoking, n (%) | | 125 (34%) | 13 (40.6%) | 0.447‡ |
| HTN, n (%) | | 211 (57.3%) | 18 (56.3%) | 0.905‡ |
| DM, n (%) | | 91 (24.7%) | 8 (25.0%) | 0.973‡ |
| BMI (Kg/m ²) | Mean ±SD | 27.03±3.7 | 29.17±3.72 | 0.002* |
| | Range | 16-96 | 21.3-36.8 | |
| SBP (mm/Hg) | Mean ±SD | 136.37±26.8 | 140.28±21.47 | 0.339* |
| | Range | 65-191 | 90-180 | |
| DBP (mm/Hg) | Mean ±SD | 86.6±17.61 | 93.72±15.29 | 0.027* |
| | Range | 43-130 | 60-122 | |
| AMI, n (%) | | 118 (32.1%) | 15 (46.9%) | 0.088‡ |
| β-blocker, n (%) | | 309 (84%) | 27 (84.4%) | 0.852‡ |
| ACEI/ARB, n (%) | | 206 (56%) | 17 (53.1%) | 0.755‡ |
| CCB, n (%) | | 103 (28%) | 9 (28.1%) | 0.987‡ |
| Diuretics, n (%) | | 126 (34.2%) | 17 (53.1%) | 0.033‡ |
| Statins, n (%) | | 344 (93.5%) | 31 (96.9%) | 0.446‡ |
| LMWH, n (%) | | 168 (45.7%) | 21 (65.6%) | 0.030‡ |
| Nitrates, n (%) | | 235 (63.9%) | 21 (65.6%) | 0.857‡ |

†Mann-Whitney U test, ‡ Chi-square test, *Student T test

AMI, acute myocardial infarction; ACEI/ARB, angiotensin converting enzyme inhibitors/angiotensin receptor blocker; CCB, calcium channel blockers; LMWH, low molecular weight heparin.

Table (2): laboratory Data of the AKI and non - AKI groups

| | Groups | Mean ±SD/ Median (IQR) | | Range | | | P-value |
|---------------------------------------|---------------|---------------------------|--------------|--------|---|--------|---------------------|
| Triglyceride (mmol/l) | Non-AKI group | 1.35 | (1.10-1.73) | 1.01 | - | 1.94 | <0.001 [#] |
| | AKI group | 1.13 | (1.04-1.35) | 0.95 | - | 1.52 | |
| Total cholesterol level (mmol/l) | Non-AKI group | 3.81 | ±1.63 | 0.89 | - | 7.92 | 0.985 [*] |
| | AKI group | 3.80 | ±1.72 | 1.40 | - | 7.25 | |
| HDL (mmol/l) | Non-AKI group | 1.13 | (1.02-1.25) | 1.91 | - | 9.96 | 0.426 [#] |
| | AKI group | 1.13 | (1.06-1.26) | 1.98 | - | 1.36 | |
| LDL (mmol/l) | Non-AKI group | 2.69 | ±1.27 | 0.0 | - | 5.66 | 0.998 [*] |
| | AKI group | 2.69 | ±1.05 | 0.35 | - | 4.85 | |
| Albumin level (g/dl) | Non-AKI group | 40.92 (35.2-48.75) | | 29.55 | - | 56.3 | 0.026 [#] |
| | AKI group | 38.53 (33.69-43.62) | | 28.65 | - | 50.8 | |
| Blood glucose (mmol/l) | Non-AKI group | 7.11 | ±2.84 | 0.13 | - | 14.87 | 0.001 [*] |
| | AKI group | 8.88 | ±3.09 | 3.80 | - | 15.3 | |
| Fibrinogen level (g/l) | Non-AKI group | 2.88 | ±0.30 | 2.0 | - | 3.9 | <0.001 [*] |
| | AKI group | 3.29 | ±0.27 | 2.85 | - | 3.79 | |
| Antithrombin-III (%) | Non-AKI group | 95.85 | ±15.88 | 59 | - | 182 | 0.002 [*] |
| | AKI group | 86.75 | ±15.49 | 61.38 | - | 114.73 | |
| Neutrophil to lymphocyte ratio | Non-AKI group | 3.56 | ±0.89 | 1.50 | - | 5.08 | <0.001 [*] |
| | AKI group | 4.30 | ±1.05 | 2.65 | - | 5.85 | |
| Platelet to lymphocyte ratio | Non-AKI group | 139.99 | ±19.99 | 105 | - | 178 | 0.002 [*] |
| | AKI group | 151.68 | ±19.21 | 116.47 | - | 186.71 | |
| Baseline S. creatinine (μmol/l) | Non-AKI group | 66.19 | (62.0-72.99) | 57 | - | 89 | 0.808 [#] |
| | AKI group | 66.30 | (62.5-71.0) | 56.2 | - | 75.4 | |
| Cystatin C (mg/l) | Non-AKI group | 0.81 | (0.76-0.84) | 0.7 | - | 75 | 0.094 [#] |
| | AKI group | 0.79 | (0.75-0.82) | 0.71 | - | 0.88 | |
| Serum uric acid (μmol/l) | Non-AKI group | 303.96 | ±36.96 | 236 | - | 364 | 0.262 [*] |
| | AKI group | 310.03 | ±28.18 | 265 | - | 355 | |
| eGFR (ml/min) | Non-AKI group | 119.0 | (95.0-145.5) | 26 | - | 174 | 0.871 [#] |
| | AKI group | 118.0 | (82.0-154.0) | 35 | - | 191 | |
| Peak S. creatinine after PCI (μmol/l) | Non-AKI group | 68.25 (59.20-76.00) | | 57 | - | 85.20 | <0.001 [*] |
| | AKI group | 89.50 (75.31-105.2) | | 59.35 | - | 107 | |

p>0.05 is non-significant, p < 0.05 is significant, [#]Mann-Whitney U Test ^{*}Student T T Test

Table (3): Multiple logistic regression analysis of risk factors for AKI

| Parameters | B | S.E. | Wald | P-value | Odds ratio (OR) | 95%CI | |
|--------------------------------|--------|-------|--------|------------------|-----------------|-------------|-------------|
| | | | | | | Lower limit | Upper limit |
| BMI | 0.253 | 0.091 | 7.797 | 0.005 | 1.288 | 1.078 | 1.538 |
| DBP (mm/Hg) | 0.044 | 0.026 | 2.922 | 0.087 | 1.045 | 0.994 | 1.100 |
| Diuretics | -0.760 | 0.818 | .864 | 0.353 | 0.467 | 0.094 | 2.324 |
| LMWH | 0.779 | 0.691 | 1.272 | 0.259 | 2.179 | 0.563 | 8.433 |
| Triglyceride | -6.426 | 1.565 | 16.860 | <0.001 | 0.002 | 0.000 | 0.035 |
| Albumin | -0.202 | 0.064 | 9.823 | 0.002 | 0.817 | 0.720 | 0.927 |
| Blood glucose | 0.295 | 0.120 | 6.033 | 0.014 | 1.343 | 1.061 | 1.699 |
| Fibrinogen level | 5.051 | 1.195 | 17.852 | <0.001 | 6.159 | 4.998 | 12.950 |
| Anti-thrombin III | -0.002 | 0.020 | 0.010 | 0.921 | .998 | 0.959 | 1.039 |
| Neutrophil to lymphocyte ratio | .0686 | 0.401 | 2.920 | 0.088 | 1.986 | 0.904 | 4.362 |
| Platelet to lymphocyte ratio | 0.011 | 0.017 | 0.452 | 0.501 | 1.011 | 0.979 | 1.045 |

B: Regression coefficient; S.E.: Standard error, CI: Confidence interval, DBP: Diastolic blood pressure

Table (4): Validity (AUC, sensitivity, specificity) for Cystatin D level, in prediction and detection of RA.

| | Cutoff value | AUC | 95%CI | Sensitivity | Specificity | PPV | NPV | P-value |
|--------------------------|--------------|-------|-------------|-------------|-------------|-------|-------|------------------|
| Fibrinogen | 2.91g/l | 0.829 | 0.612-0.707 | 93.7% | 56.2% | 68.1% | 98.9% | <0.001 |
| Anti-thrombin III | 85.6 | 0.661 | 0.612-0.707 | 62.5% | 74.7% | 68.8% | 65.7% | 0.002 |
| Fibrinogen+ | 0.0923 | 0.845 | 0.806-0.879 | 75% | 79.3% | 78.4% | 76% | <0.001 |
| Anti-thrombin III | | | | | | | | |

AUC: Area Under a Curve, p-value: Probability value NPV: Negative predictive value PPV: Positive predictive value*: Statistically significant at $p \leq 0.05$