

Supplemental Material

Supplemental Table 1. Patient characteristics according to diastolic function at 1-year post-myocardial infarction in the subgroup with diastolic dysfunction at baseline (n=137)

| | Diastolic dysfunction n=101 | | Normal diastolic function n=36 | | P- value |
|---|--------------------------------|---------------------|-----------------------------------|---------------------|-------------|
| | m±SD/ n(%) | median (Q1-Q3) | m±SD/ n(%) | median (Q1-Q3) | |
| Baseline characteristics | | | | | |
| Age | 62±12 | 62 (52-73) | 53±11 | 52 (46-57) | 0.0002 |
| Male gender | 80 (79%) | | 31 (86%) | | 0.36 |
| BMI (kg/m ²) | 27.4±5.1 | 27.6 (24.2-30.0) | 26.6±3.6 | 26.7 (24.5-28.2) | 0.42 |
| Hypertension | 46 (46%) | | 11 (31%) | | 0.12 |
| Diabetes mellitus | 27 (27%) | | 4 (11%) | | 0.054 |
| Dyslipidemia | 34 (34%) | | 11 (31%) | | 0.73 |
| Current smoker | 39 (39%) | | 19 (53%) | | 0.22 |
| e-GFR (ml/min/1.73m ²) MDRD | 78±19 | 77 (64-92) | 88±21 | 92 (72-106) | 0.011 |
| Myocardial infarction | | | | | |
| Killip class 2-4 | 35 (35%) | | 11 (31%) | | 0.65 |
| CPK peak (UI/l) | 2915±2200 | 2253 (1521-3758) | 3108±2045 | 2685 (1449-4257) | 0.40 |
| Multivessel disease | 45 (45%) | | 14 (40%) | | 0.61 |
| PCI during hospitalization | 89 (89%) | | 32 (89%) | | 0.99 |
| Baseline hemodynamics | | | | | |
| Heart rate (bpm) | 71±13 | 68 (62-80) | 72±16 | 71 (61-81) | 0.95 |
| Systolic BP (mmHg) | 109.9±16.5 | 110 (100-120) | 108.2±21.6 | 110 (101-120) | 0.67 |
| Diastolic BP (mmHg) | 62.2±11.1 | 61 (55-70) | 63.7±9.8 | 60 (58-70) | 0.55 |
| LVEF (%) | 49.13±8.44 | 50.0 (45.5-54.5) | 50.22±7.68 | 51.0 (42.0-55.5) | 0.48 |
| LVEF ≤45% | 25 (25%) | | 11 (31%) | | 0.52 |
| Septal e' (cm/s) | 5.65±1.54 | 5.40 (4.80-6.60) | 5.79±1.41 | 6.15 (4.80-6.75) | 0.21 |
| Lateral e' (cm/s) | 6.82±1.73 | 6.80 (5.60-8.10) | 7.06±1.83 | 7.15 (5.75-8.30) | 0.44 |
| LAVi | 21.31±6.54 | 20.19 (16.25-25.39) | 19.18±5.82 | 18.24 (14.80-20.15) | 0.071 |

Biomarkers at 1 month

| | | | | | |
|-------------------|-----------|------------------|-----------|------------------|------|
| BNP (ng/l) | 206±359 | 102 (54-224) | 106±80 | 83 (53-148) | 0.11 |
| Galectin-3 (µg/l) | 14.5±9.0 | 12.6 (8.4-18.7) | 15.5±12.8 | 13.7 (5.4-20.3) | 0.77 |
| PINP (mg/l) | 39.4±15.8 | 35.9 (29.5-45.4) | 37.3±12.4 | 34.5 (30.3-43.1) | 0.59 |
| PIIINP (mg/l) | 5.3±2.0 | 4.7 (3.9-6.4) | 5.6±2.3 | 5.2 (3.9-6.5) | 0.50 |
| ICTP (mg/l) | 5.3±1.9 | 4.9 (4.2-6.2) | 5.7±5.1 | 4.7 (4.0-5.5) | 0.52 |
| PIIINP/ICTP ratio | 1.07±0.45 | 1.00 (0.82-1.20) | 1.18±0.63 | 1.04 (0.74-1.41) | 0.69 |

Medication at discharge

| | | | | | |
|----------------------|------------|--|-----------|--|------|
| Aspirin | 101 (100%) | | 35 (97%) | | 0.26 |
| Anti-platelet agents | 98 (97%) | | 34 (94%) | | 0.6 |
| Beta-blockers | 99 (98%) | | 36 (100%) | | 1.00 |
| ACE inhibitors | 97 (96%) | | 35 (97%) | | 1.00 |
| Diuretics | 31 (31%) | | 9 (25%) | | 0.52 |
| Statins | 95 (94%) | | 34 (94%) | | 1.00 |
| ARB | 1 (1%) | | 0 | | 1.00 |
| MRA | 31 (31%) | | 15 (42%) | | 0.23 |

Legend: BMI, body mass index; eGFR, estimated glomerular filtration rate; LVEF, left ventricular ejection fraction; LAVi, left atrial volume indexed to body surface area.

Supplemental Table 2. Association of the studied biomarkers and normal diastolic function at 1-year post-myocardial infarction in the subgroup of patients with diastolic dysfunction at baseline (n=137)

| Biomarker | Univariable Model | | Backward Selected Model* | |
|----------------------|--------------------------|----------------|---------------------------------|----------------|
| | OR (95% CI) | P-value | OR (95% CI) | P-value |
| PIIINP >6 mg/l | 0.90 (0.36 - 2.27) | 0.83 | NS | NS |
| ICTP >5 mg/l | 0.68 (0.30 - 1.51) | 0.34 | NS | NS |
| PIIINP/ICTP ratio <1 | 0.86 (0.39 - 1.89) | 0.71 | NS | NS |
| Galectin-3 >13 µg/l | 1.22 (0.55 - 2.68) | 0.62 | NS | NS |
| BNP >82 ng/l | 0.41 (0.18 - 0.94) | 0.034 | 0.06 (0.01 - 0.28) | 0.0003 |

*Model including age, estimated glomerular filtration rate, diabetes and hypertension history.

See Supplemental Table 1 for abbreviations.

Supplemental Table 3. Biomarker correlation table

| | PIIINP | ICTP | PIIINP/ICTP | Galectin-3 | BNP | eGFR |
|-------------|--------|--------------|----------------|-------------|---------------|-----------------|
| PIIINP | 1.00 | 0.24 (0.068) | 0.67 (<0.0001) | 0.13 (0.33) | 0.05 (0.70) | -0.20 (0.13) |
| ICTP | | 1.00 | -0.45 (0.0005) | 0.01 (0.92) | 0.25 (0.061) | -0.23 (0.093) |
| PIIINP/ICTP | NA | NA | 1.00 | 0.18 (0.19) | -0.09 (0.49) | -0.005 (0.97) |
| Galectin-3 | | | | 1.00 | 0.38 (0.0038) | -0.57 (<0.0001) |
| BNP | | | | | 1.00 | -0.37 (0.004) |
| eGFR | | | | | | 1.00 |

See Supplemental Table 1 for abbreviation

Supplemental Table 4. Medication at 1-year

Medication at 1 year in patients with normal diastolic function at baseline

| | | | |
|---------|----------|----------|------|
| Aspirin | 21 (95%) | 37 (95%) | 1.00 |
|---------|----------|----------|------|

| | | | |
|---|----------|-----------|-------|
| Anti-platelet agents | 21 (95%) | 34 (87%) | 0.40 |
| Beta-blockers | 19 (90%) | 38 (97%) | 0.28 |
| ACE-inhibitors | 19 (86%) | 38 (97%) | 0.13 |
| Mineralocorticoid receptor antagonists | 8 (36%) | 8 (21%) | 0.23 |
| Diuretics | 6 (27%) | 2 (5%) | 0.021 |
| Statins | 19 (86%) | 38 (97%) | 0.13 |
| Medications at 1-year in patients with diastolic dysfunction at baseline | | | |
| Aspirin | 98 (97%) | 32 (89%) | 0.077 |
| Anti-platelet agents | 94 (93%) | 34 (94%) | 1.00 |
| Beta-blockers | 95 (95%) | 36 (100%) | 0.32 |
| ACE inhibitors | 86 (86%) | 30 (83%) | 0.78 |
| Diuretics | 39 (39%) | 8 (22%) | 0.10 |
| Statins | 96 (95%) | 36 (100%) | 0.32 |
| ARB | 13 (13%) | 2 (6%) | 0.35 |
| MRA | 33 (33%) | 14 (39%) | 0.50 |