**Appendix**

**Increased Epicardial Adipose Tissue Thickness is a Predictor of**

**New-Onset Diabetes Mellitus in Patients on High-Intensity Statin Therapy**

**after Percutaneous Coronary Intervention**

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**1. Additional file Table**

**2. Additional file** Figures and Figure legends

**1. Additional file Table**

**Table S1. Changes in glucose tolerance status**

|  |  |  |  |
| --- | --- | --- | --- |
| Glucose tolerance status | | Group | N (%) |
| Baseline | **At Follow-up** |
| Normal glucose tolerance | Normal glucose tolerance | No Progression | 101 (31.5%) |
| Prediabetes | Prediabetes | 97 (30.2%) |
| Normal glucose tolerance | New-onset prediabetes | Progression | 81 (25.2%) |
| Normal glucose tolerance | New-onset Diabetes Mellitus | 9 (2.8%) |
| Prediabetes | New-onset Diabetes Mellitus | 33 (10.3%) |

**Table S2. Baseline clinical characteristics of the total population, grouped by progression of glucose intolerance**

|  |  |  |  |
| --- | --- | --- | --- |
|  | Progression (n=123) | No progression (n=198) | P value |
| **Demographic findings** |  |  |  |
| Age (years) | 59.2±11.4 | 60.4±13.5 | 0.412 |
| Sex (male ratio, %) | 89 (72.4%) | 149 (75.3%) | 0.565 |
| BMI (kg/m2) | 25.3±2.9 | 25.1±3.1 | 0.622 |
| BMI > 25 kg/m2 | 62 (50.4%) | 95 (48.0%) | 0.672 |
| Clinical diagnosis (%) |  |  | 0.412 |
| Stable angina | 43 (34.9%) | 72 (36.3%) |  |
| Unstable angina | 17 (13.8%) | 31 (15.7%) |  |
| NSTEMI | 31 (25.2%) | 33 (16.7%) |  |
| STEMI | 32 (26.0%) | 62 (31.3%) |  |
| Hypertension (%) | 50 (40.7%) | 77 (38.9%) | 0.754 |
| Current Smoking (%) | 33 (26.8%) | 51 (25.8%) | 0.832 |
| Bronchial Asthma (%) | 1 (0.8%) | 4 (2.0%) | 0.396 |
| Previous CVA (%) | 9 (4.5%) | 2 (1.6%) | 0.215 |
| COPD (%) | 4 (3.3%) | 5 (2.5%) | 0.701 |
| Dyslipidemia (%) | 31 (25.2%) | 49 (24.7%) | 0.927 |
| Prediabetes (%) | 97 (49.0%) | 33 (26.8%) | <0.001 |
| **Laboratory findings** |  |  |  |
| WBC (/μL) | 8900±3870 | 8710±3410 | 0.645 |
| Hemoglobin (g/dL) | 14.7±1.7 | 14.4±1.6 | 0.112 |
| Fasting blood glucose (mg/dl) | 94.2±12.1 | 91.1±13.4 | 0.049 |
| HbA1c (% / mmol/mol) | 5.8±0.6 / 39.4±6.5 | 5.7±0.3 / 38.5±3.7 | 0.185 |
| Total cholesterol (mg/dl) | 213±49 | 209±44 | 0.517 |
| Triglyceride (mg/dl) | 173±125 | 158±103 | 0.237 |
| HDL-cholesterol (mg/dl) | 44±11 | 44±9 | 0.570 |
| LDL-cholesterol (mg/dl) | 133±38 | 132±35 | 0.820 |
| Serum creatinine (mg/dl) | 0.89±0.35 | 0.89±0.22 | 0.946 |
| hsCRP (mg/dl) | 0.42±1.23 | 0.62±1.67 | 0.275 |
| **Echocardiography** |  |  |  |
| LVEDD (mm) | 47.9±4.9 | 48.1±6.0 | 0.697 |
| LVESD (mm) | 30.8±5.7 | 32.1±7.1 | 0.071 |
| LV ejection fraction (%) | 59.2±8.5 | 57.5±9.8 | 0.109 |
| Left atrium dimension (mm) | 36.9±5.1 | 37.8±6.6 | 0.178 |
| EAT diastole (mm) | 1.9±1.1 | 1.7±1.1 | 0.245 |
| EAT systole (mm) | 4.4±1.8 | 3.9±1.6 | 0.010 |
| **Baseline medication** |  |  |  |
| Aspirin | 123 (100%) | 198 (100%) | NA |
| Clopidogrel | 123 (100%) | 197 (99.5%) | 0.430 |
| ACE inhibitor or ARB | 105 (85.4%) | 170 (85.9%) | 0.903 |
| Beta blockers | 96 (78.0%) | 150 (75.8%) | 0.637 |
| Thiazides | 14 (11.4%) | 22 (11.1%) | 0.940 |
| Systemic steroid | 11 (8.9%) | 19 (9.6%) | 0.845 |
| Statin |  |  | 0.938 |
| Atorvastatin 40mg | 77 (62.6%) | 127 (64.1%) |  |
| Atorvastatin 80mg | 23 (18.7%) | 34 (17.2%) |  |
| Rosuvastatin 20mg | 23 (18.7%) | 37 (18.7%) |  |
| Statin duration (days) |  |  |  |
| Total statin duration | 1230±511 | 1114±512 | 0.050 |
| High intensity statin duration | 974±512 | 940±532 | 0.570 |

ACE, angiotensin-converting enzyme; ARB, angiotensin-receptor blocker; BMI, body mass index; COPD, chronic obstructive pulmonary disease; CVA, cerebrovascular accident; EAT, epicardial adipose tissue; HDL, high density lipoprotein; hsCRP, high-sensitivity C-reactive protein; ISR, in-stent restenosis; LDL, low density lipoprotein; LV, left ventricular; LVEDD, left ventricular end diastolic dimension; LVESD, left ventricular end systolic dimension; MI, myocardial infarction; NSTEMI, non-ST-segment elevation myocardial infarction; STEMI, ST-segment elevation myocardial infarction; WBC, white blood cell

**Table S3. Multivariate analysis for progression in impairment of glucose tolerance**

|  |  |  |  |
| --- | --- | --- | --- |
| Factor | HR | 95% CI | P |
| Age | 0.986 | 0.965 – 1.008 | 0.207 |
| Male sex | 1.068 | 0.597 – 1.910 | 0.824 |
| BMI | 1.019 | 0.935 – 1.109 | 0.673 |
| Hypertension | 1.040 | 0.623 – 1.736 | 0.880 |
| Prediabetes at baseline | 3.265 | 1.919 – 5.555 | <0.001 |
| EAT thickness at systole (per mm) | 1.309 | 1.117 – 1.534 | 0.001 |
| Total statin duration (per year) | 1.149 | 0.967 – 1.366 | 0.114 |

BMI, body mass index; EAT, epicardial adipose tissue