Supplementary materials



Supplementary Figure 1. Cumulative incidence of (A) all-cause mortality, (B) MACCE and (C) cardiac mortality.

MACCE, major adverse cardiac and cerebrovascular events; CRP, C-reactive protein.

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Supplementary Table 1. Collinearity analysis of covariates and hsCRP.

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| --- | --- | --- |
| Variables | Collinearity statistics | |
|  | Tolerance | VIF |
| Age | 0.84 | 1.19 |
| Sex | 0.57 | 1.76 |
| LVEF | 0.96 | 1.04 |
| Serum creatinine | 0.78 | 1.29 |
| Prior PCI | 0.95 | 1.06 |
| Prior CABG | 0.96 | 1.05 |
| Diabetes | 0.98 | 1.02 |
| Hypertension | 0.95 | 1.06 |
| smoking | 0.70 | 1.43 |
| Triglyceride | 0.94 | 1.07 |
| Statin at discharge | 1.00 | 1.00 |
| LDL-C | 0.96 | 1.05 |
| BMI | 0.93 | 1.08 |

Abbreviations: BMI, body mass index; CABG, coronary artery bypass grafting; LDL-C, low-density lipoprotein cholesterol; LVEF, left ventricular ejection fraction; PCI, percutaneous coronary intervention; VIF, variance inflation factor.

Supplementary Table 2. Baseline characteristics stratified by BMI categories

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Normal  (n=1870) | Overweight  (n=3762) | Obese  (n=1764) | *P* value |
| BMI (kg/m2) | 22.3±1.3 | 25.9±1.1 | 30.1±2.0 | <0.001 |
| Age (years) | 61.1±9.9 | 58.5±9.7 | 56.5±10.0 | <0.001 |
| Female | 570 (30.5) | 824 (21.9) | 394 (22.3) | <0.001 |
| Family history of CAD | 408 (21.8) | 932 (24.8) | 471 (26.7) | 0.004 |
| Prior stroke | 197 (10.5) | 437 (11.6) | 171 (9.7) | 0.09 |
| Prior myocardial infarction | 412 (22.0) | 812 (21.6) | 404 (22.9) | 0.51 |
| Prior PAD | 68 (3.6) | 108 (2.9) | 40 (2.3) | 0.04 |
| Prior PCI | 433 (23.2) | 991 (26.3) | 481 (27.3) | 0.004 |
| Prior CABG | 77 (4.1) | 171 (4.5) | 82 (4.6) | 0.72 |
| Diabetes | 535 (28.6) | 1126 (29.9) | 636 (36.1) | <0.001 |
| Hypertension | 1086 (58.1) | 2502 (66.5) | 1268 (71.9) | <0.001 |
| Hyperlipidemia | 1194 (63.9) | 2611 (69.3) | 1289 (73.2) | <0.001 |
| Current/former Smoker | 973 (52.0) | 2113 (56.2) | 1073 (60.8) | <0.001 |
| LVEF (%) | 63.6±7.1 | 64.0±6.5 | 63.4±7.1 | 0.004 |
| **Clinical presentation** |  |  |  | 0.184 |
| Asymptomatic | 171 (9.1) | 376 (10.0) | 182 (10.3) |  |
| Stable angina | 703 (37.6) | 1505 (40.0) | 699 (39.7) |  |
| Unstable angina | 996 (53.3) | 1881 (50.0) | 883 (50.1) |  |
| **Laboratory values** |  |  |  |  |
| hsCRP (mg/l) | 1.07 (0.66-1.07) | 1.30 (0.69-2.41) | 1.58 (0.89-2.93) | <0.001 |
| Creatinine (μmol/l) | 73.24±15.76 | 75.03±14.70 | 75.93±16.09 | <0.001 |
| HDL-C (mmol/l) | 1.13±0.30 | 1.04±0.27 | 1.00±0.26 | <0.001 |
| LDL-C (mmol/l) | 2.45±0.90 | 2.49±0.92 | 2.54±0.94 | 0.01 |
| Triglycerides (mmol/l) | 1.35 (1.01-1.84) | 1.55 (1.16-2.10) | 1.66 (1.25-2.29) | <0.001 |
| **Medication at discharge** |  |  |  |  |
| Aspirin | 1840 (98.4) | 3719 (98.9) | 1746 (99.0) | 0.16 |
| Clopidogrel | 1833 (98.0) | 3707 (98.5) | 1751 (99.3) | 0.005 |
| β-blocker | 1643 (87.9) | 3390 (90.1) | 1609 (91.2) | 0.003 |
| CCB | 947 (50.6) | 1962 (52.2) | 990 (56.1) | 0.002 |
| Statin | 1800 (96.3) | 3613 (96.0) | 1692 (95.9) | 0.75 |

Abbreviations: BMI, body mass index; CABG, coronary artery bypass grafting; CAD, coronary artery disease; CCB, calcium channel blocker; HDL-C, high-density lipoprotein cholesterol; hsCRP, high-sensitivity C-reactive protein; LDL-C, low-density lipoprotein cholesterol; LVEF, left ventricular ejection fraction; PAD, peripheral artery disease; PCI, percutaneous coronary intervention.

Supplementary Table 3. Risk of endpoints classified by BMI and hsCRP.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | All-cause mortality | |  | MACCE | |  | Cardiac mortality |  |
| Population | HR (95% CI)\* | *P* value |  | HR (95% CI)\* | *P* value |  | HR (95%CI)\* | *P* value |
| hsCRP≤3 mg/l, normal | Reference | NA |  | Reference | NA |  | Reference | NA |
| hsCRP≤3 mg/l, overweight | 0.87 (0.62-1.23) | 0.44 |  | 0.94 (0.82-1.07) | 0.34 |  | 0.76 (0.48-1.21) | 0.25 |
| hsCRP≤3 mg/l, obese | 1.15 (0.77-1.70) | 0.50 |  | 0.89 (0.76-1.06) | 0.19 |  | 1.26 (0.76-2.08) | 0.37 |
| hsCRP>3 mg/l, normal | 2.06 (1.27-3.34) | **0.003** |  | 1.33 (1.05-1.70) | **0.02** |  | 2.24 (1.21-4.16) | **0.01** |
| hsCRP>3 mg/l, overweight | 1.19 (0.75-1.86) | 0.46 |  | 1.13 (0.94-1.36) | 0.20 |  | 1.26 (0.70-2.25) | 0.45 |
| hsCRP>3 mg/l, obese | 0.85 (0.46-1.56) | 0.60 |  | 0.95 (0.76-1.21) | 0.69 |  | 1.16 (0.58-2.32) | 0.68 |

\*Cox proportional hazards regression model was adjusted for age, sex, LVEF, prior PCI/CABG, serum creatinine, diabetes, hypertension, smoking, triglyceride, LDL-C and statin.

Abbreviations: BMI, body mass index; HR, hazard ratio; MACCE, major adverse cardiac and cerebrovascular events; NA, not available.

Supplementary Table 4. Risk of all-cause mortality classified by BMI and hsCRP between men and women

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Men |  |  | Women |  |  |
| Group | Event/total (%) | HR (95%CI)\* | *P* value | Event/total (%) | HR (95%CI)\* | *P* value |
| hsCRP≤3 mg/l, normal | 44/1087 (4.0) | Reference | NA | 15/487 (3.1) | Reference | NA |
| hsCRP≤3 mg/l, overweight | 70/2403 (2.9) | 0.83 (0.56-1.22) | 0.35 | 21/664 (3.2) | 1.05 (0.53-2.07) | 0.90 |
| hsCRP≤3 mg/l, obese | 37/1086 (3.4) | 1.06 (0.68-1.66) | 0.80 | 12/255 (4.7) | 1.54 (0.69-3.44) | 0.30 |
| hsCRP>3 mg/l, normal | 17/213 (8.0) | 1.99 (1.13-3.50) | **0.02** | 8/83 (9.6) | 2.45 (0.97-6.19) | 0.06 |
| hsCRP>3 mg/l, overweight | 26/535 (4.9) | 1.29 (0.78-2.11) | 0.32 | 4/160 (2.5) | 0.77 (0.25-2.38) | 0.65 |
| hsCRP>3 mg/l, obese | 10/284 (3.5) | 0.86 (0.42-1.79) | 0.69 | 4/139 (2.9) | 0.86 (0.28-2.68) | 0.80 |

\*Cox proportional hazards regression model was adjusted for age, LVEF, prior PCI/CABG, serum creatinine, diabetes, hypertension, smoking, triglyceride, LDL-C and statin.

Abbreviations: BMI, body mass index; CI, confidence interval; HR, hazard ratio; NA, not available.

*P* for interaction between BMI categories and hsCRP (≤3 or >3 mg/l): 0.16 in men; 0.09 in women.