**Table 1.** Baseline and stress echocardiography characteristics

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Baseline characteristics** |  | **DSE (N = 46)** | **ExSE (N = 46)** | **DIP (N = 43)** | **p1 (DSE vs. ExSE vs. DIP)** | **p1**  **(DSE vs. ExSE)** | **p1**  **(DSE vs.**  **DIP)** | **p1**  **(DIP vs. ExSE)** |
| **Sex** | Women, n (%) | 30 (65.2%) | 32 (69.6%) | 22 (51.2%) | 0.177 |  |  |  |
|  | Men, n (%) | 16 (34.8%) | 14 (30.4%) | 21 (48.8%) |  |  |  |
| **Age** | median (5th–95th percentile) | 60 (37–74) | 57 (36–75) | 60 (39–71) | 0.429 |  |  |  |
| **Women** |  | 63 (36-79) | 57 (36-75) | 62 (45-73) | 0.572 |  |  |  |
| **Men** |  | 58 (37-74) | 49 (36-75) | 58 (39-70) | 0.691 |  |  |  |
| **Smoking** | n (%) | 11 (23.9%) | 8 (17.4%) | 6 (14.0%) | 0.468 |  |  |  |
| **Family history of IHD** | n (%) | 9 (19.6%) | 11 (23.9%) | 18 (41.9%) | **0.048** | 0.613 | **0.022** | 0.071 |
| **Hypercholesterolemia** | n (%) | 26 (56.5%) | 25 (54.3%) | 25 (58.1%) | 0.936 |  |  |  |
| **Hypertension** | n (%) | 23 (50.0%) | 22 (47.8%) | 25 (58.1%) | 0.594 |  |  |  |
| **IVS thickness** | mm | 10.0 (7.5; 12.5) | 10.0 (8.0; 12.5) | 11.0 (9.0; 12.5) | 0.052 |  |  |  |
| **hsTnT (baseline)** | median (5th–95th percentile) | 5.1 (3.0–13.0) | 5.4 (3.0–9.5) | 5.5 (3.6–9.2) | 0.575 |  |  |  |
|  | Women | 4.3 (4.0-11.8) | 5.6 (3.0-10.0) | 5,3 (3.2-8.1) | 0.330 |  |  |  |
|  | Men | 6.4 (3.0-13.7) | 4.7 (3.0-9.0) | 5.8 (3.7-9.6) | 0.500 |  |  |  |
| **PTP of IHD (%)18** | median (5th–95th percentile) | 10.0 (2.0–24.0) | 11.0 (1.0–44.0) | 11.0 (2.0–32.0) | 0.575 |  |  |  |
| **eGFR (ml/s/1,73 m2)** | median (5th–95th percentile) | 1.4 (1.1–1.9) | 1.4 (1.1–1.7) | 1.5 (1.2–1.7) | **0.017** | 0.283 | 0.132 | **0.003** |
| **Length of test (min.)** | median (5th–95th percentile) | 10.0 (7.0–15.0) | 9.0 (6.0–16.0) | 10.0 (6.0–10.0) | 0.256 |  |  |  |
| **Atropine** | n (%) | 10 (21.7%) | 9 (19.6%) | 0 (0.0%) | 0.797 |  |  |  |
|  | median (5th–95th percentile) | 500 (200–800) | 300 (300–1 000) | – | 0.899 |  |  |  |
| **Sonovue** | n (%) | 31 (67.4%) | 37 (80.4%) | 41 (95.3%) | **0.004** | 0.154 | **0.001** | **0.033** |
|  | median (5th–95th percentile) | 1.6 (0.9–2.5) | 1.5 (0.9–2.5) | 2.0 (1.3–2.8) | **< 0.001** | 0.324 | **0.007** | **<0.001** |
| **Systolic blood pressure (max)** | median (5th–95th percentile) | 161 (128–193) | 195.5 (162–225) | 140 (114–175) | **< 0.001** | **<0.001** | **<0.001** | **<0.001** |
| **Interventricular septum (mm)** | median (5th-95th percentile) | 10 (7.5-12.5) | 10 (8-12.5) | 11 (9-12.5) | **0,052** |  |  |  |
| **Heart rate (peak)** | median (5th–95th percentile) | 142.5 (130–157) | 150 (131–169) | 104 (79–122) | **< 0.001** | **<0.001** | **<0.001** | **<0.001** |
| **Dual product (heart rate x systolic blood pressure)** | median (5th–95th percentile) | 22 815 (16 482–28 014) | 29 766.5  (23 976–34 080) | 14 850 (10 062–18 981) | **< 0.001** | **<0.001** | **<0.001** | **<0.001** |

1 P-value of chi-square test or Fisher exact test in case of categorical variables and Kruskal-Wallis or Mann-Whitney U test in case of continuous variables. IVS-interventricular septum, PTP-pre-test probability, IHD-ischemic heart disease, eGFR-estimated glomerular filtration rate.

**Table 2.** Association of maximal dose of dobutamine, peak heart rate and length of test with atropine administration (DSE group)

|  |  |  |  |
| --- | --- | --- | --- |
| **DSE (N=46),**  **median (5th–95th percentile)** | **Atropine administration** | | **p1** |
| **No (N=36)** | **Yes (N=10)** |
| **Maximal dose of dobutamine** | 30 (20–40) | 40 (30–40) | 0.158 |
| **Peak heart rate** | 143 (127–160) | 142 (130–155) | 0.708 |
| **Length of test (min.)** | 9.5 (7.0–14.0) | 12.5 (8.0–15.0) | **0.012** |

1 Mann-Whitney U test

**Table 3.** Association of baseline and procedure characteristics with change of hsTnT (baseline–180 minutes)

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Association with difference in baseline hsTnT and hsTnT at 180 minutes** | | **DSE** | | **ExSE** | | **DIP** | |
| **Correlation1** | **p2** | **Correlation1** | **p2** | **Correlation1** | **p2** |
| **Age** |  | r= -0.18 | 0.229 | r=0.32 | **0.030** | r= -0.02 | 0.889 |
| **Sex** | **Women** | 5.3 (1.5–85.6) | 0.249 | 2.1 (-0.6–22.7) | **0.012** | 0.1 (-0.8–2.3) | 0.123 |
| **Men** | 13.4 (-1.4–160.3) | 0.4 (-1.1–2.6) | -0.2 (-1.4–1.6) |
| **Risk of ischaemic heart disease (%)** | | r= -0.10 | 0.531 | r=0.05 | 0.722 | r=0.06 | 0.701 |
| **Smoking** | **No** | 9.7 (0.4–120.2) | 0.990 | 1.6 (-0.4–22.7) | 0.072 | -0.1 (-2.8–2.3) | 0.726 |
| **Yes** | 9.1 (1.9–35.6) | 0.0 (-1.6–9.7) | -0.1 (-0.6–1.6) |
| **Family history** | **No** | 9.7 (0.4–85.6) | 0.901 | 1.5 (-1.1–22.7) | 0.877 | -0.2 (-0.9–2.1) | 0.115 |
| **Yes** | 7.8 (1.9–120.2) | 0.5 (-0.4–14.9) | 0.1 (-2.8–12.7) |
| **Hypercholesterolemia** | **No** | 19.5 (1.1–140.3) | 0.425 | 1.1 (-0.7–10.3) | 0.766 | -0.1 (-0.9–0.9) | 0.356 |
| **Yes** | 8.2 (1.5–54.2) | 0.6 (-0.9–22.7) | 0.1 (-2.8–2.3) |
| **Hypertension** | **No** | 4.9 (1.9–120.2) | 0.750 | 0.7 (-1.1–14.9) | 0.878 | -0.1 (-2.8–0.9) | 0.252 |
| **Yes** | 9.9 (1.5–54.2) | 1.3 (-0.6–15.7) | 0.1 (-1.4–2.3) |
| **Watts** |  | – | – | r= -0.26 | 0.078 | – | – |
| **Length of test (min.)** |  | r=0.43 | **0.003** | r=0.10 | 0.530 | – | – |
| **Atropine** | **No** | 5.3 (0.4–45.3) | **0.001** | 1.1 (-1.1–15.7) | 0.782 | – | – |
| **Yes** | 40.1 (3.7–160.3) | 0.6 (-0.9–22.7) | – |
| **Atropine (dose)** |  | r=0.36 | 0.310 | r= -0.09 | 0.819 | – | – |
| **Sonovue** | **No** | 9.7 (1.9–160.3) | 0.897 | 2.4 (0.0–15.7) | 0.228 | -0.1 (-0.8–0.6) | 0.729 |
| **Yes** | 9.1 (0.4–85.6) | 0.7 (-1.1–22.7) | -0.1 (-1.4–2.1) |
| **Sonovue (ml)** |  | r= -0.06 | 0.739 | r= -0.09 | 0.604 | r= -0.04 | 0.817 |
| **Systolic blood pressure (max)** |  | r=0.09 | 0.556 | r=0.08 | 0.584 | r=0.17 | 0.264 |
| **Heart rate** |  | r=0.09 | 0.563 | r= -0.24 | 0.104 | r=0.18 | 0.241 |
| **Dual product** | | r=0.04 | 0.815 | r=0.01 | 0.970 | r=0.25 | 0.112 |
| **Creatinine (μmol/l)** |  | r=0.14 | 0.366 | r= -0.32 | **0.028** | r= -0.43 | **0.004** |
| **eGFR (ml/min/1,73 m2)** |  | r=0.10 | 0.514 | r= -0.18 | 0.243 | r=0.26 | 0.092 |

**1** Spearman correlation coefficient (r) with change of hsTnT at baseline and 180 minutes in case of continuous variables and median (5th–95th percentile) in case of categorical variables. **2**P-value associated with Spearman correlation coefficient or Mann-Whitney U test.

sBP-systolic blood pressure, dual product = systolic blood pressure x heart rate, eGFR-estimated glomerular filtration rate

**Table 4.** Identification of outliers in change of hsTnT in 180 min.

|  |  |  |  |
| --- | --- | --- | --- |
| **Procedure** | **Low1** | **Normal** | **High2** |
| DSE | 0 | 30 | 16 |
| ExSE | 0 | 44 | 2 |
| DIP | 0 | 43 | 0 |

1 Change in hsTnT lower than: 25th percentile - 1.5 \* IQR.

2 Change in hsTnT higher than: 75th percentile + 1.5 \* IQR.

**Table 5.** Correlation of number of risk factors with change of hsTnT

|  |  |  |
| --- | --- | --- |
| **Correlation of number of risk factors\* with change of hsTnT at baseline and 180 min.** | **rS** | **p1** |
| Total (N=135) | -0.044 | 0.612 |
| DSE (N=46) | -0.021 | 0.888 |
| ExSE (N=46) | -0.169 | 0.263 |
| DIP (N=43) | 0.287 | 0.062 |

**1**P-value associated with Spearman correlation coefficient

\* Risk factors (sum of): smoking, family history, hypertension, hypercholesterolemia