**SUPPLEMENTAL MATERIALS**

**Supplemental Table S1. Baseline characteristics of cohort according to thyroid status defined by serum thyrotropin (TSH) levels categorized as <3.0 vs. ≥3.0 mIU/L.**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **TSH CATEGORY** | | |  |
|  | **Overall** | **≤3.0mIU/L** | **>3.0mIU/L** | **P-value** |
| No. of patients (%) | 104 | 85 | 19 | N/A |
| TSH (mIU/L), min-max | 0.14-10.02 | 0.14-2.98 | 3.06-10.02 | N/A |
| Age (years), mean ± SD | 58±13 | 59±13 | 56±13 | 0.49 |
| Female, % | 52 | 51 | 58 | 0.56 |
| Race, %  White  Non-white | 63  37 | 60  40 | 79  21 | 0.12 |
| Hispanic, % | 55 | 52 | 68 | 0.19 |
| Vascular Access, %  AVF/AVG  Catheter | 80  20 | 82  18 | 68  32 | 0.17 |
| Diabetes, % | 68 | 66 | 79 | 0.27 |
| Anti-TPO Antibody level, median (IQR) | 1.0 (1.0, 2.0) | 1.0 (1.0, 2.0) | 1.0 (1.0, 14.0) | 0.14 |
| Direct Free T4 level, median (IQR) | 1.6 (1.4, 2.0) | 1.7 (1.5, 2.0) | 1.6 (1.4, 1.9) | 0.43 |

**Supplemental Table S2. Association between serum thyrotropin (TSH) category and coronary artery calcification Volume Score (VS) using logistic regression.**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **TSH TERTILES** | | | | | | | | | |
|  |  | **Unadjusted** | | **Case-mix** | | **Expanded case-mix** | | **Expanded case-mix + vascular access** | |
| **TSH** | **VS\*** | **OR (95% CI)** | **p** | **OR (95% CI)** | **p** | **OR (95% CI)** | **p** | **OR (95% CI)** | **p** |
| **Tertile 2** | **>100**  **(vs. ≤100)** | 0.84 (0.32, 2.22) | 0.73 | 0.73 (0.23, 2.34) | 0.60 | 0.68 (0.20, 2.31) | 0.53 | 0.68 (0.20, 2.36) | 0.54 |
| **Tertile 3** | 2.86 (0.94, 8.71) | 0.07 | 4.26 (1.18, 15.40) | 0.03 | 4.24 (1.16, 15.50) | 0.03 | 4.25 (1.17, 15.50) | 0.03 |
| **Tertile 2** | **>400**  **(vs. ≤400)** | 0.74 (0.29, 1.92) | 0.54 | 0.68 (0.24, 1.96) | 0.48 | 0.54 (0.17, 1.70) | 0.29 | 0.52 (0.16, 1.66) | 0.27 |
| **Tertile 3** | 1.79 (0.69, 4.65) | 0.23 | 2.23 (0.79, 6.30) | 0.13 | 2.52 (0.85, 7.48) | 0.10 | 2.48 (0.83, 7.40) | 0.10 |
| **Tertile 2** | **>1000**  **(vs. ≤1000)** | 0.77 (0.26, 2.27) | 0.63 | 0.78 (0.24, 2.55) | 0.68 | 0.65 (0.19, 2.23) | 0.49 | 0.63 (0.18, 2.19) | 0.47 |
| **Tertile 3** | 1.88 (0.70, 5.06) | 0.21 | 2.57 (0.85, 7.76) | 0.09 | 2.86 (0.92, 8.96) | 0.07 | 2.78 (0.88, 8.77) | 0.08 |
| **TSH >3.0 vs. ≤3.0 MIU/L** | | | | | | | | | |
|  |  | **Unadjusted** | | **Case-mix** | | **Expanded case-mix** | | **Expanded case-mix + vascular access** | |
| **TSH** | **VS\*** | **OR (95% CI)** | **p** | **OR (95% CI)** | **p** | **OR (95% CI)** | **p** | **OR (95% CI)** | **p** |
| **>3.0**  **(vs. ≤3.0)** | **>100**  **(vs. ≤100)** | 4.88 (1.06, 22.50) | 0.04 | 11.70 (1.90, 71.36) | 0.008 | 10.50 (1.74, 63.60) | 0.01 | 10.90 (1.80, 65.50) | 0.009 |
| **>3.0**  **(vs. ≤3.0)** | **>400**  **(vs. ≤400)** | 2.44 (0.85, 7.01) | 0.10 | 3.68 (1.15, 11.80) | 0.03 | 3.56 (1.09, 11.60) | 0.03 | 3.52 (1.08, 11.50) | 0.04 |
| **>3.0**  **(vs. ≤3.0)** | **>1000**  **(vs. ≤1000)** | 1.75 (0.63, 4.86) | 0.29 | 2.55 (0.82, 7.95) | 0.11 | 2.54 (0.80, 8.04) | 0.11 | 2.45 (0.76, 7.89) | 0.13 |
| **CONTINUOUS TSH (INCREMENTS OF 1 STANDARD DEVIATION [SD] = TSH 1.9 mIU/L)** | | | | | | | | | |
|  |  | **Unadjusted** | | **Case-mix** | | **Expanded case-mix** | | **Expanded case-mix + vascular access** | |
| **TSH** | **VS\*** | **OR (95% CI)** | **p** | **OR (95% CI)** | **p** | **OR (95% CI)** | **p** | **OR (95% CI)** | **p** |
| **∆1 SD** | **>100**  **(vs. ≤100)** | 2.17 (1.07, 4.40) | 0.03 | 2.87 (1.24, 6.67) | 0.01 | 2.87 (1.21, 6.83) | 0.02 | 2.89 (1.21, 6.90) | 0.02 |
| **∆1 SD** | **>400**  **(vs. ≤400)** | 1.44 (0.92, 2.24) | 0.11 | 1.63 (1.02, 2.60) | 0.04 | 1.63 (1.00, 2.65) | 0.05 | 1.64 (1.00, 2.65) | 0.05 |
| **∆1 SD** | **>1000**  **(vs. ≤1000)** | 1.39 (0.93, 2.09) | 0.11 | 1.61 (1.03, 2.51) | 0.04 | 1.61 (1.02, 2.52) | 0.04 | 1.60 (1.02, 2.51) | 0.04 |

\*Volumetric Score units: mm3

**Supplemental Table S3. Association of other covariates with coronary artery calcification Volume Score and Agatston Score in the expanded case-mix+vascular access models.**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Outcome** | **Covariates** | **Odds Ratio** | **95% CI Lower** | **95% CI Upper** | **P-value** |
| **Volume Score >100 mm3** | Age | 1.09 | 1.04 | 1.14 | <0.001 |
| Female (vs. male) | 0.31 | 0.10 | 0.92 | 0.04 |
| White (vs. non-white) | 0.20 | 0.05 | 0.76 | 0.02 |
| Diabetes (vs. non-diabetes) | 3.75 | 1.08 | 13.04 | 0.04 |
| **Agatston Score >100 HU** | Age | 1.09 | 1.04 | 1.15 | <0.001 |
| Female (vs. male) | 0.24 | 0.08 | 0.76 | 0.02 |
| White (vs. non-white) | 0.21 | 0.05 | 0.80 | 0.02 |
| Diabetes (vs. non-diabetes) | 4.22 | 1.17 | 15.28 | 0.03 |

**Supplemental Table S4. Association between serum thyrotropin, anti-thyroid peroxidase antibody, and direct free thyroxine category and continuous coronary artery calcification Volume Score (VS) using linear regression.**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **THYROTROPIN (TSH)** | | | | | | | | | |
|  |  | **Unadjusted** | | **Case-mix** | | **Expanded case-mix** | | **Expanded case-mix + vascular access** | |
| **THYROID MARKER** | **DEFINITION** | **β (95% CI)** | **p** | **β (95% CI)** | **p** | **β (95% CI)** | **p** | **β (95% CI)** | **p** |
| **TSH** | **∆1 mIU/L** | 105 (-15, 224) | 0.08 | 131 (15, 248) | 0.03 | 123 (9, 236) | 0.04 | 127 (13, 240) | 0.03 |
| **TSH** | **∆SD\*** | 199 (-28, 426) | 0.08 | 250 (28, 471) | 0.03 | 233 (17, 449) | 0.04 | 241 (25, 456) | 0.03 |
| **ANTI-THYROID PEROXIDASE ANTIBODY (ANTI-TPO AB)** | | | | | | | | | |
|  |  | **Unadjusted** | | **Case-mix** | | **Expanded case-mix** | | **Expanded case-mix + vascular access** | |
| **THYROID MARKER** | **DEFINITION** | **β (95% CI)** | **p** | **β (95% CI)** | **p** | **β (95% CI)** | **p** | **β (95% CI)** | **p** |
| **ANTI-TPO AB** | **∆1** | -1 (-8, 6) | 0.70 | -2 (-9, 5) | 0.58 | -2 (-8, 5) | 0.64 | -2 (-9, 4) | 0.52 |
| **ANTI-TPO AB** | **∆SD\*\*** | -44 (-269, 181) | 0.70 | -62 (-281, 158) | 0.58 | -51 (-264, 163) | 0.64 | -69 (-283, 145) | 0.52 |
| **FREE THYROXINE (FT4)** | | | | | | | | | |
|  |  | **Unadjusted** | | **Case-mix** | | **Expanded case-mix** | | **Expanded case-mix + vascular access** | |
| **THYROID MARKER** | **DEFINITION** | **β (95% CI)** | **p** | **β (95% CI)** | **p** | **β (95% CI)** | **p** | **β (95% CI)** | **p** |
| **FT4** | **∆1** | 66 (-271, 403) | 0.70 | -15 (-346, 317) | 0.93 | -38 (-361, 285) | 0.82 | -46 (-367, 275) | 0.77 |
| **FT4** | **∆SD\*\*\*** | 46 (-189, 282) | 0.70 | -10 (-242, 222) | 0.93 | -27 (-252, 199) | 0.82 | -32 (-257, 192) | 0.77 |

\*TSH: 1 standard deviation [SD] = 1.9 mIU/L.

\*\*Anti-TPO Ab: 1 standard deviation [SD] = 33 U/ML.

\*\*\*FT4: 1 standard deviation [SD] = 0.7 ng/dl.

**Supplemental Table S5. Sensitivity analyses of the association between serum thyrotropin (TSH) category and coronary artery calcification Volume Score (VS) and Agatston Score (AS) using logistic regression adjusted for expanded case-mix + vascular access + nutritional/inflammatory covariates.**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **VOLUME SCORE (VS)** | | | | **AGATSTON SCORE (AS)** | | | |
| **TSH TERTILES** | | | | **TSH TERTILES** | | | |
| **TSH** | **VS** | **OR (95% CI)** | **P-value** | **TSH** | **AS** | **OR (95% CI)** | **P-value** |
| **Tertile 2** | **>100**  **(vs. ≤100)** | 0.68 (0.19, 2.42) | 0.56 | **Tertile 2** | **>100**  **(vs. ≤100)** | 0.66 (0.18, 2.36) | 0.52 |
| **Tertile 3** | 4.36 (1.12, 17.01) | 0.03 | **Tertile 3** | 6.16 (1.42, 26.60) | 0.02 |
| **Tertile 2** | **>400**  **(vs. ≤400)** | 0.50 (0.15, 1.64) | 0.25 | **Tertile 2** | **>400**  **(vs. ≤400)** | 0.49 (0.15, 1.57) | 0.23 |
| **Tertile 3** | 2.35 (0.75, 7.36) | 0.14 | **Tertile 3** | 1.45 (0.47, 4.44) | 0.52 |
| **Tertile 2** | **>1000**  **(vs. ≤1000)** | 0.69 (0.19, 2.47) | 0.57 | **Tertile 2** | **>1000**  **(vs. ≤1000)** | 0.70 (0.20, 2.38) | 0.57 |
| **Tertile 3** | 3.11 (0.92, 10.49) | 0.07 | **Tertile 3** | 2.80 (0.86, 9.13) | 0.09 |
| **TSH >3.0 vs. ≤3.0 MIU/L** | | | | **TSH >3.0 vs. ≤3.0 MIU/L** | | | |
| **TSH** | **VS** | **OR (95% CI)** | **P-value** | **TSH** | **AS** | **OR (95% CI)** | **P-value** |
| **>3.0**  **(vs. ≤3.0)** | **>100**  **(vs. ≤100)** | 11.53 (1.87, 71.13) | 0.008 | **>3.0**  **(vs. ≤3.0)** | **>100**  **(vs. ≤100)** | 11.24 (1.78, 70.88) | 0.01 |
| **>3.0**  **(vs. ≤3.0)** | **>400**  **(vs. ≤400)** | 3.62 (1.08, 12.10) | 0.04 | **>3.0**  **(vs. ≤3.0)** | **>400**  **(vs. ≤400)** | 2.79 (0.84, 9.33) | 0.10 |
| **>3.0**  **(vs. ≤3.0)** | **>1000**  **(vs. ≤1000)** | 2.47 (0.77, 7.98) | 0.13 | **>3.0**  **(vs. ≤3.0)** | **>1000**  **(vs. ≤1000)** | 2.83 (0.89, 9.00) | 0.08 |
| **CONTINUOUS TSH (INCREMENTS OF**  **1 STANDARD DEVIATION [SD] = TSH 1.9 mIU/L)** | | | | **CONTINUOUS TSH (INCREMENTS OF**  **1 STANDARD DEVIATION [SD] = TSH 1.9 mIU/L)** | | | |
| **TSH** | **VS** | **OR (95% CI)** | **P-value** | **TSH** | **AS** | **OR (95% CI)** | **P-value** |
| **∆1 SD** | **>100**  **(vs. ≤100)** | 2.91 (1.20, 7.08) | 0.02 | **∆1 SD** | **>100**  **(vs. ≤100)** | 3.18 (1.25, 8.08) | 0.02 |
| **∆1 SD** | **>400**  **(vs. ≤400)** | 1.62 (0.99, 2.65) | 0.06 | **∆1 SD** | **>400**  **(vs. ≤400)** | 1.43 (0.89, 2.30) | 0.14 |
| **∆1 SD** | **>1000**  **(vs. ≤1000)** | 1.62 (1.02, 2.57) | 0.04 | **∆1 SD** | **>1000**  **(vs. ≤1000)** | 1.56 (0.99, 2.45) | 0.05 |

\*\*Volumetric Score units: mm3; Agatston Score units: Houndsfield units.

**Supplemental Table S6. Association between serum thyrotropin (TSH) category and coronary artery calcification Agatston Score (AS) using logistic regression.**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **TSH TERTILES** | | | | | | | | | |
|  |  | **Unadjusted** | | **Case-mix** | | **Expanded case-mix** | | **Expanded case-mix + vascular access** | |
| **TSH** | **AS\*** | **OR (95% CI)** | **p** | **OR (95% CI)** | **p** | **OR (95% CI)** | **p** | **OR (95% CI)** | **p** |
| **Tertile 2** | **>100**  **(vs. ≤100)** | 0.84 (0.32, 2.22) | 0.73 | 0.73 (0.23, 2.36) | 0.60 | 0.67 (0.19, 2.33) | 0.53 | 0.65 (0.18, 2.26) | 0.49 |
| **Tertile 3** | 3.55 (1.10, 11.40) | 0.03 | 5.53 (1.44, 21.30) | 0.01 | 5.49 (1.41, 21.39) | 0.01 | 5.49 (1.41, 21.50) | 0.01 |
| **Tertile 2** | **>400**  **(vs. ≤400)** | 0.67 (0.26, 1.72) | 0.40 | 0.61 (0.21, 1.76) | 0.36 | 0.51 (0.16, 1.56) | 0.25 | 0.51 (0.16, 1.59) | 0.24 |
| **Tertile 3** | 1.27 (0.49, 3.31) | 0.63 | 1.47 (0.52, 4.14) | 0.47 | 1.54 (0.53, 4.47) | 0.43 | 1.53 (0.52, 4.46) | 0.44 |
| **Tertile 2** | **>1000**  **(vs. ≤1000)** | 0.79 (0.28, 2.23) | 0.65 | 0.79 (0.25, 2.49) | 0.69 | 0.67 (0.20, 2.22) | 0.51 | 0.67 (0.20, 2.21) | 0.51 |
| **Tertile 3** | 1.84 (0.69, 4.87) | 0.22 | 2.46 (0.84, 7.23) | 0.10 | 2.68 (0.89, 8.12) | 0.08 | 2.65 (0.87, 8.08) | 0.09 |
| **TSH >3.0 vs. ≤3.0 MIU/L** | | | | | | | | | |
|  |  | **Unadjusted** | | **Case-mix** | | **Expanded case-mix** | | **Expanded case-mix + vascular access** | |
| **TSH** | **AS\*** | **OR (95% CI)** | **p** | **OR (95% CI)** | **p** | **OR (95% CI)** | **p** | **OR (95% CI)** | **p** |
| **>3.0 (vs. ≤3.0)** | **>100**  **(vs. ≤100)** | 4.64 (1.00, 21.40) | 0.05 | 10.80 (1.78, 65.80) | 0.01 | 9.79 (1.63, 58.90) | 0.01 | 9.79 (1.63, 59.00) | 0.01 |
| **>3.0 (vs. ≤3.0)** | **>400**  **(vs. ≤400)** | 1.93 (0.67, 5.54) | 0.22 | 2.83 (0.88, 9.07) | 0.08 | 2.70 (0.83, 8.79) | 0.10 | 2.71 (0.83, 8.87) | 0.10 |
| **>3.0 (vs. ≤3.0)** | **>1000**  **(vs. ≤1000)** | 1.93 (0.70, 5.31) | 0.20 | 2.86 (0.93, 8.80) | 0.07 | 2.83 (0.91, 8.81) | 0.07 | 2.82 (0.89, 8.90) | 0.08 |
| **CONTINUOUS TSH (INCREMENTS OF 1 STANDARD DEVIATION [SD] = TSH 1.9 mIU/L)** | | | | | | | | | |
|  |  | **Unadjusted** | | **Case-mix** | | **Expanded case-mix** | | **Expanded case-mix + vascular access** | |
| **TSH** | **AS\*** | **OR (95% CI)** | **p** | **OR (95% CI)** | **p** | **OR (95% CI)** | **p** | **OR (95% CI)** | **p** |
| **∆1 SD** | **>100**  **(vs. ≤100)** | 2.27 (1.08, 4.75) | 0.03 | 3.05 (1.26, 7.37) | 0.01 | 3.06 (1.23, 7.59) | 0.02 | 3.05 (1.23, 7.57) | 0.01 |
| **∆1 SD** | **>400**  **(vs. ≤400)** | 1.29 (0.84, 1.99) | 0.24 | 1.45 (0.92, 2.29) | 0.11 | 1.43 (0.89, 2.28) | 0.14 | 1.43 (0.89, 2.28) | 0.14 |
| **∆1 SD** | **>1000**  **(vs. ≤1000)** | 1.36 (0.91, 2.04) | 0.14 | 1.55 (1.00, 2.41) | 0.05 | 1.55 (1.00, 2.42) | 0.05 | 1.55 (0.99, 2.41) | 0.05 |

\*Agatston Score units: Houndsfield units.

**Supplemental Table S7. Association between serum thyrotropin (TSH), anti-thyroid peroxidase antibody (Anti-TPO Ab), and direct free thyroxine (FT4) category and continuous coronary artery calcification Agatston Score (AS) using linear regression.**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **THYROTROPIN (TSH)** | | | | | | | | | |
|  |  | **Unadjusted** | | **Case-mix** | | **Expanded case-mix** | | **Expanded case-mix + vascular access** | |
| **THYROID MARKER** | **DEFINITION** | **β (95% CI)** | **p** | **β (95% CI)** | **p** | **β (95% CI)** | **p** | **β (95% CI)** | **p** |
| **TSH** | **∆1 mIU/L** | 131 (-21, 282) | 0.09 | 164 (16, 312) | 0.03 | 153 (9, 297) | 0.04 | 158 (14, 302) | 0.03 |
| **TSH** | **∆SD\*** | 248 (-39, 536) | 0.09 | 311 (30, 592) | 0.03 | 290 (16, 565) | 0.04 | 300 (27, 573) | 0.03 |
| **ANTI-THYROID PEROXIDASE ANTIBODY (ANTI-TPO AB)** | | | | | | | | | |
|  |  | **Unadjusted** | | **Case-mix** | | **Expanded case-mix** | | **Expanded case-mix + vascular access** | |
| **THYROID MARKER** | **DEFINITION** | **β (95% CI)** | **p** | **β (95% CI)** | **p** | **β (95% CI)** | **p** | **β (95% CI)** | **p** |
| **ANTI-TPO AB** | **∆1 U/ML** | -2 (-10, 7) | 0.71 | -2 (-11, 6) | 0.59 | -2 (-10, 6) | 0.65 | -3 (-11, 6) | 0.53 |
| **ANTI-TPO AB** | **∆SD\*\*** | -53 (-338, 231) | 0.71 | -76 (-354, 201) | 0.59 | -63 (-333, 208) | 0.65 | -86 (-357, 186) | 0.53 |
| **FREE THYROXINE (FT4)** | | | | | | | | | |
|  |  | **Unadjusted** | | **Case-mix** | | **Expanded case-mix** | | **Expanded case-mix + vascular access** | |
| **THYROID MARKER** | **DEFINITION** | **β (95% CI)** | **p** | **β (95% CI)** | **p** | **β (95% CI)** | **p** | **β (95% CI)** | **p** |
| **FT4** | **∆1 NG/DL** | 87 (-339, 513) | 0.69 | -16 (-436, 404) | 0.94 | -45 (-454, 363) | 0.83 | -56 (-462, 351) | 0.79 |
| **FT4** | **∆SD\*\*\*** | 61 (-237, 359) | 0.69 | -11 (-305, 283) | 0.94 | -32 (-318, 254) | 0.83 | -39 (-324, 246) | 0.79 |

\*TSH: 1 standard deviation [SD] = 1.9 mIU/L.

\*\*Anti-TPO Ab: 1 standard deviation [SD] = 33 U/ML.

\*\*\*FT4: 1 standard deviation [SD] = 0.7 ng/dl.

**Supplemental Table S8. Association between serum anti-thyroid peroxidase antibody (Anti-TPO Ab) and direct free thyroxine (FT4) category and coronary artery calcification Volume Score (VS) using logistic regression.**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **CONTINUOUS ANTI-TPO AB (INCREMENTS OF 1)** | | | | | | | | | |
|  |  | **Unadjusted** | | **Case-mix** | | **Expanded case-mix** | | **Expanded case-mix + vascular access** | |
| **ANTI-TPO AB** | **VS\*** | **OR (95% CI)** | **p** | **OR (95% CI)** | **p** | **OR (95% CI)** | **p** | **OR (95% CI)** | **p** |
| **∆1** | **>100**  **(vs. ≤100)** | 1.00 (0.99, 1.02) | 0.77 | 1.00 (0.98, 1.02) | 0.94 | 1.00 (0.99, 1.02) | 0.98 | 1.00 (0.99, 1.02) | 0.99 |
| **∆1** | **>400**  **(vs. ≤400)** | 1.00 (0.98, 1.01) | 0.59 | 1.00 (0.98, 1.01) | 0.43 | 1.00 (0.98, 1.01) | 0.50 | 1.00 (0.98, 1.01) | 0.53 |
| **∆1** | **>1000**  **(vs. ≤1000)** | 1.00 (0.98, 1.01) | 0.65 | 1.00 (0.98, 1.01) | 0.50 | 1.00 (0.98, 1.01) | 0.58 | 1.00 (0.98, 1.01) | 0.62 |
| **CONTINUOUS ANTI-TPO AB (INCREMENTS OF 1 STANDARD DEVIATION = 33 U/ML)** | | | | | | | | | |
|  |  | **Unadjusted** | | **Case-mix** | | **Expanded case-mix** | | **Expanded case-mix + vascular access** | |
| **ANTI-TPO AB** | **VS\*** | **OR (95% CI)** | **p** | **OR (95% CI)** | **p** | **OR (95% CI)** | **p** | **OR (95% CI)** | **p** |
| **∆1 SD** | **>100**  **(vs. ≤100)** | 1.07 (0.68, 1.68) | 0.77 | 1.02 (0.58, 1.79) | 0.94 | 1.01 (0.61, 1.67) | 0.98 | 1.00 (0.60, 1.66) | 0.99 |
| **∆1 SD** | **>400**  **(vs. ≤400)** | 0.89 (0.60, 1.34) | 0.59 | 0.85 (0.58, 1.26) | 0.43 | 0.87 (0.58, 1.31) | 0.50 | 0.88 (0.58, 1.32) | 0.53 |
| **∆1 SD** | **>1000**  **(vs. ≤1000)** | 0.90 (0.55, 1.45) | 0.65 | 0.86 (0.55, 1.33) | 0.50 | 0.88 (0.56, 1.39) | 0.58 | 0.89 (0.57, 1.41) | 0.62 |
| **CONTINUOUS DIRECT FT4 (INCREMENTS OF 1 STANDARD DEVIATION [SD] = 0.7 NG/DL)** | | | | | | | | | |
|  |  | **Unadjusted** | | **Case-mix** | | **Expanded case-mix** | | **Expanded case-mix + vascular access** | |
| **FT4** | **VS\*** | **OR (95% CI)** | **p** | **OR (95% CI)** | **p** | **OR (95% CI)** | **p** | **OR (95% CI)** | **p** |
| **∆1 SD** | **>100**  **(vs. ≤100)** | 1.03 (0.66, 1.60) | 0.90 | 0.84 (0.54, 1.31) | 0.44 | 0.83 (0.54, 1.28) | 0.40 | 0.83 (0.54, 1.28) | 0.40 |
| **∆1 SD** | **>400**  **(vs. ≤400)** | 1.08 (0.71, 1.64) | 0.72 | 0.94 (0.62, 1.43) | 0.78 | 0.91 (0.60, 1.40) | 0.68 | 0.91 (0.60, 1.40) | 0.68 |
| **∆1 SD** | **>1000**  **(vs. ≤1000)** | 1.02 (0.67, 1.55) | 0.93 | 0.89 (0.56, 1.41) | 0.61 | 0.85 (0.52, 1.40) | 0.53 | 0.85 (0.52, 1.40) | 0.53 |

\*Volumetric Score units: mm3

**Supplemental Table S9. Association between serum anti-thyroid peroxidase antibody (Anti-TPO Ab) category and direct free thyroxine (FT4) category and coronary artery calcification Agatston Score (AS) using logistic regression.**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **CONTINUOUS ANTI-TPO AB (INCREMENTS OF 1)** | | | | | | | | | |
|  |  | **Unadjusted** | | **Case-mix** | | **Expanded case-mix** | | **Expanded case-mix + vascular access** | |
| **ANTI-TPO AB** | **AS\*** | **OR (95% CI)** | **p** | **OR (95% CI)** | **p** | **OR (95% CI)** | **p** | **OR (95% CI)** | **p** |
| **∆1** | **>100**  **(vs. ≤100)** | 1.00 (0.99, 1.02) | 0.81 | 1.00 (0.98, 1.02) | 0.98 | 1.00 (0.99, 1.02) | 0.98 | 1.00 (0.99, 1.02) | >0.99 |
| **∆1** | **>400**  **(vs. ≤400)** | 1.00 (0.98, 1.01) | 0.44 | 0.99 (0.98, 1.01) | 0.31 | 0.99 (0.98, 1.01) | 0.36 | 0.99 (0.98, 1.01) | 0.36 |
| **∆1** | **>1000**  **(vs. ≤1000)** | 1.00 (0.98, 1.01) | 0.65 | 1.00 (0.98, 1.01) | 0.50 | 1.00 (0.98, 1.01) | 0.57 | 1.00 (0.98, 1.01) | 0.59 |
| **CONTINUOUS ANTI-TPO AB (INCREMENTS OF 1 STANDARD DEVIATION = 33 U/ML)** | | | | | | | | | |
|  |  | **Unadjusted** | | **Case-mix** | | **Expanded case-mix** | | **Expanded case-mix + vascular access** | |
| **ANTI-TPO AB** | **AS\*** | **OR (95% CI)** | **p** | **OR (95% CI)** | **p** | **OR (95% CI)** | **p** | **OR (95% CI)** | **p** |
| **∆ 1 SD** | **>100**  **(vs. ≤100)** | 1.06 (0.68, 1.65) | 0.81 | 1.01 (0.58, 1.73) | 0.98 | 0.99 (0.61, 1.62) | 0.98 | 1.00 (0.61, 1.65) | >0.99 |
| **∆ 1 SD** | **>400**  **(vs. ≤400)** | 0.85 (0.56, 1.29) | 0.44 | 0.81 (0.55, 1.21) | 0.31 | 0.82 (0.54, 1.26) | 0.36 | 0.82 (0.53, 1.26) | 0.36 |
| **∆ 1 SD** | **>1000**  **(vs. ≤1000)** | 0.90 (0.56, 1.43) | 0.65 | 0.86 (0.56, 1.32) | 0.50 | 0.88 (0.57, 1.37) | 0.57 | 0.89 (0.57, 1.38) | 0.59 |
| **CONTINUOUS FT4 (INCREMENTS OF 1 STANDARD DEVIATION [SD] = 0.7 NG/DL)** | | | | | | | | | |
|  |  | **Unadjusted** | | **Case-mix** | | **Expanded case-mix** | | **Expanded case-mix + vascular access** | |
| **FT4** | **AS\*** | **OR (95% CI)** | **p** | **OR (95% CI)** | **p** | **OR (95% CI)** | **p** | **OR (95% CI)** | **p** |
| **∆1 SD** | **>100**  **(vs. ≤100)** | 1.04 (0.67, 1.62) | 0.87 | 0.85 (0.55, 1.32) | 0.46 | 0.84 (0.54, 1.30) | 0.42 | 0.84 (0.54, 1.30) | 0.43 |
| **∆1 SD** | **>400**  **(vs. ≤400)** | 1.09 (0.71, 1.66) | 0.71 | 0.94 (0.62, 1.43) | 0.77 | 0.91 (0.60, 1.40) | 0.68 | 0.91 (0.59, 1.40) | 0.68 |
| **∆1 SD** | **>1000**  **(vs. ≤1000)** | 0.97 (0.64, 1.48) | 0.89 | 0.84 (0.52, 1.35) | 0.46 | 0.81 (0.49, 1.34) | 0.40 | 0.80 (0.48, 1.34) | 0.40 |

\*Agatston Score units: Houndsfield units.