**Supplementary material Table S1.  Association of total iron intake and nonheme iron intake with risk of gastric cancer**

**stratified by *H. pylori* infection status**

| Iron (mg/day) | *H. pylori*-positive | | | | *H. pylori*-negative | | | |
|---|---|---|---|---|---|---|---|---|
| | No. of controls (%) | No. of cases (%) | Model I [OR (95% CI)] | Model II [OR (95% CI)] | No. of controls (%) | No. of cases (%) | Model I [OR (95% CI)] | Model II [OR (95% CI)] |
| **Total iron[a]** | | | | | | | | |
| *All* | | | | | | | | |
| T1 (<12.04) | 170 (36.6) | 138 (39.9) | 1 | 1 | 81 (27.9) | 9 (32.1) | 1 | 1 |
| T2 (12.04–14.76) | 142 (30.6) | 125 (36.1) | 1.08 (0.78–1.51) | 1.12 (0.77–1.63) | 108 (37.2) | 13 (46.4) | 1.08 (0.44–2.66) | 1.20 (0.44–3.33) |
| T3 (≥14.76) | 152 (32.8) | 83 (24.0) | 0.67 (0.47–0.95) | **0.66 (0.44–0.98)** | 101 (34.8) | 6 (21.4) | 0.54 (0.18–1.56) | 0.40 (0.11–1.47) |
| p for trend | | | 0.022 | **0.035** | | | 0.217 | 0.151 |
| *Males* | | | | | | | | |
| T1( <11.67) | 117 (36.3) | 80 (35.1) | 1 | 1 | 49 (28.2) | 5 (31.3) | 1 | 1 |
| T2 (11.67–14.30) | 100 (31.1) | 94 (41.2) | 1.38 (0.92 – 2.05) | 1.65 (1.02–2.67) | 64 (36.8) | 6 (37.4) | 0.92 (0.27–3.19) | 1.26 (0.29–5.44) |
| T3 ((≥14.30) | 105 (32.6) | 54 (23.7) | 0.75 (0.49 – 1.16) | 0.81 (0.48–1.36) | 61 (35.0) | 5 (31.3) | 0.80 (0.22–2.93) | 0.70 (0.13–3.74) |
| p for trend | | | 0.165 | 0.308 | | | 0.738 | 0.678 |
| *Females* | | | | | | | | |
| T1 (<12.68) | 53 (37.3) | 58 (49.2) | 1 | 1 | 32 (27.6) | 5 (41.7) | 1 | 1 |
| T2 (12.68–15.80) | 41 (28.9) | 30 (25.4) | 0.67 (0.37 – 1.22) | 0.86 (0.44–1.69) | 46 (39.7) | 5 (41.7) | 0.70 (0.19–2.60) | 0.53 (0.10–2.80) |
| T3 (≥15.80) | 48 (33.8) | 30 (25.4) | 0.57 (0.32 – 1.03) | 0.65 (0.34–1.26) | 38 (32.7) | 2 (16.6) | 0.34 (0.06–1.86) | 0.47 (0.05–4.29) |
| p for trend | | | 0.063 | 0.202 | | | 0.206 | 0.451 |
| **Nonheme iron[a]** | | | | | | | | |
| *All* | | | | | | | | |
| T1 (<9.10) | 170 (36.6) | 150 (43.4) | 1 | 1 | 81 (27.9) | 12 (42.9) | 1 | 1 |
| T2 (9.10–11.02) | 153 (33.0) | 106 (30.6) | 0.79 (0.56–1.09) | 0.77 (0.53–1.13) | 97 (33.5) | 9 (32.1) | 0.63 (0.25–1.56) | 0.58 (0.20–1.68) |
| T3 (≥11.02) | 141 (30.4) | 90 (26.0) | 0.72 (0.51–1.02) | 0.70 (0.47–1.05) | 112 (38.6) | 7 (25.0) | 0.42 (0.16–1.12) | 0.28 (0.09–1.94) |
| p for trend | | | 0.067 | 0.093 | | | 0.088 | 0.039 |
| *Males* | | | | | | | | |
| T1 (<8.86) | 112 (34.8) | 95 (41.7) | 1 | 1 | 54 (31.0) | 4 (25.0) | 1 | 1 |
| T2 (8.86–10.73) | 109 (33.9) | 73 (32.0) | 0.79 (0.53–1.18) | 0.70 (0.43–1.13) | 56 (32.2) | 6 (37.5) | 1.45 (0.39–5.41) | 1.26 (0.26–6.12) |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| T3 (≥10.73) | 101 (31.4) | 60 (26.3) | 0.70 (0.46–1.07) | 0.67 (0.40–1.12) | 64 (36.8) | 6 (37.5) | 1.27 (0.34–4.72) | 1.08 (0.22–5.34) |
| p for trend | | | 0.099 | 0.136 | | | 0.789 | 0.948 |
| ***Females*** | | | | | | | | |
| T1 (<9.73) | 56 (39.4) | 59 (50.0) | 1 | 1 | 29 (25.0) | 7 (58.3) | 1 | 1 |
| T2 (9.73–11.69) | 41 (28.9) | 21 (17.8) | 0.49 (0.26–0.92) | 0.49 (0.24–1.03) | 45 (38.8) | 3 (25.0) | 0.28 (0.07–1.16) | 0.25 (0.04–1.51) |
| T3 (≥11.69) | 45 (31.7) | 38 (32.2) | 0.80 (0.46–1.41) | 0.89 (0.46–1.71) | 42(36.2) | 2 (16.7) | 1.20 (0.04–1.12) | 0.26 (0.03–2.05) |
| p for trend | | | 0.511 | 0.830 | | | 0.057 | 0.176 |

[a] *The values are presented as tertiles of iron intake.*

*OR: odds ratio, CI: confidence interval*

**Model I**: *crude model;* **Model II**: *adjusted for age, first degree family history of GC, BMI, alcohol consumption, smoking status, education, occupation, monthly income. In the overall subjects, model II was additionally adjusted for gender.*

**Supplementary material Table S2. Association of total iron intake and nonheme iron intake with risk of gastric cancer stratified by smoking status**

| Iron (mg/day) | Ever-smoker (current-smoker and ex-smoker) | | | | Non-smoker | | | |
|---|---|---|---|---|---|---|---|---|
| | No. of controls (%) | No. of cases (%) | Model I [OR (95% CI)] | Model II [OR (95% CI)] | No. of controls (%) | No. of cases (%) | Model I [OR (95% CI)] | Model II [OR (95% CI)] |
| **Total iron**[a] | | | | | | | | |
| *All* | | | | | | | | |
| T1 (<12.04) | 152 (37.0) | 90 (40.0) | 1 | 1 | 99 (28.9) | 57 (38.3) | 1 | 1 |
| T2 (12.04–14.76) | 137 (33.3) | 94 (41.8) | 1.16 (0.80–1.68) | 1.37 (0.86–2.18) | 113 (32.9) | 44 (29.5) | 0.68 (0.42–1.09) | 0.95 (0.54–1.67) |
| T3 (≥14.76) | 122 (29.7) | 41 (18.2) | 0.57 (0.37– 0.88) | **0.51 (0.29–0.88)** | 131 (38.2) | 48 (32.2) | 0.64 (0.40–1.01) | 0.76 (0.44–1.32) |
| p for trend | | | 0.012 | **0.016** | | | 0.075 | 0.223 |
| *Males* | | | | | | | | |
| T1( <11.67) | 131 (32.8) | 76 (36.0) | 1 | 1 | 35 (36.5) | 9 (27.3) | 1 | 1 |
| T2 (11.67–14.30) | 133 (33.3) | 85 (40.3) | 1.10 (0.74–1.63) | 1.35 (0.83–2.21) | 31 (32.3) | 15 (45.4) | 1.88 (0.72–4.90) | 18.81 (2.93–121.0) |
| T3 ((≥14.30) | 136 (34.0) | 50 (23.7) | 0.63 (0.41–0.97) | 0.59 (0.35–1.01) | 30 (31.3) | 9 (27.3) | 1.17 (0.41–3.32) | 3.52 (0.64–121.7) |
| p for trend | | | 0.029 | 0.035 | | | 0.870 | 0.529 |
| *Females* | | | | | | | | |
| T1 (<12.68) | 4 (33.7) | 8 (57.1) | 1 | 1 | 81 (32.8) | 55 (47.4) | 1 | 1 |
| T2 (12.68–15.80) | 4 (33.7) | 4 (28.6) | 0.50 (0.08–3.13) | - | 83 (33.6) | 31 (26.7) | 0.55 (0.32–0.94) | 0.79 (0.42–1.48) |
| T3 (≥15.80) | 3 (27.3) | 2 (14.3) | 0.33 (0.04–2.88) | - | 83 (33.6) | 30 (25.9) | 0.53 (0.31–0.91) | 0.59 (0.31–1.10) |
| P for trend | | | 0.299 | - | | | 0.024 | 0.100 |
| **Nonheme iron**[a] | | | | | | | | |
| *All* | | | | | | | | |
| T1 (<9.10) | 154 (37.5) | 107 (47.6) | 1 | 1 | 97 (28.3) | 55 (36.9) | 1 | 1 |
| T2 (9.10–11.02) | 140 (34.1) | 70 (31.1) | 0.72 (0.49–1.05) | 0.62 (0.39–1.00) | 110 (32.1) | 45 (30.2) | 0.72 (0.45–1.17) | 0.91 (0.50–1.60) |
| T3 (≥11.02) | 117 (28.4) | 48 (21.3) | 0.59 (0.30–0.90) | **0.54 (0.32–0.91)** | 136 (39.7) | 49 (32.9) | 0.64 (0.40–1.01) | 0.76 (0.43–1.33) |
| p for trend | | | 0.012 | **0.018** | | | 0.068 | 0.215 |
| *Males* | | | | | | | | |
| T1 (<8.86) | 133 (33.3) | 87 (41.2) | 1 | 1 | 33 (34.4) | 12 (36.4) | 1 | 1 |
| T2 (8.86–10.73) | 134 (33.4) | 69 (32.7) | 0.79 (0.53–1.17) | 0.69 (0.42–1.13) | 31 (32.3) | 10 (30.3) | 0.89 (0.34–2.35) | 1.79 (0.45-7.05) |

| | | | Model I | Model II | | | Model I | Model II |
|---|---|---|---|---|---|---|---|---|
| T3 (≥10.73) | 133 (33.3) | 55 (26.1) | 0.63 (0.42–0.96) | **0.55 (0.33–0.93)** | 32(33.3) | 11 (33.3) | 0.95 (0.37–2.45) | 1.20 (0.32–4.59) |
| p for trend | | | 0.031 | **0.028** | | | 0.923 | 0.880 |
| **Females** | | | | | | | | |
| T1 (<9.73) | 4 (36.4) | 11 (78.6) | 1 | 1 | 81 (32.8) | 55 (47.4) | 1 | 1 |
| T2 (9.73–11.69) | 6 (54.6) | 1 (7.1) | 0.06 (0.01–0.67) | - | 80 (32.4) | 23 (19.8) | 0.42 (0.24–0.75) | 0.51 (0.26–1.00) |
| T3 (≥11.69) | 1 (9.0) | 2 (14.3) | 0.73 (0.05–10.39) | - | 86 (34.8) | 38 (32.8) | 0.65 (0.39–1.09) | 0.76 (0.41–1.42) |
| p for trend | | | 0.370 | - | | | 0.166 | 0.470 |

[a] *The values are presented as tertiles of iron intake.*

*OR: odds ratio, CI: confidence interval*

**Model I**: *crude model;* **Model II**: *adjusted for age, first degree family history of GC, alcohol consumption, BMI, education, occupation, monthly income, H. pylori infection. In the overall subjects, model II was additionally adjusted for gender*

**Supplementary material Table S3. Association of total iron intake and nonheme iron intake with risk of gastric cancer stratified by regularly exercise**

| Iron (mg/day) | No. of controls (%) | No. of cases (%) | No Model I [OR (95% CI)] | No Model II [OR (95% CI)] | No. of controls (%) | No. of cases (%) | Yes Model I [OR (95% CI)] | Yes Model II [OR (95% CI)] |
|---|---|---|---|---|---|---|---|---|
| **Total iron[a]** | | | | | | | | |
| *All* | | | | | | | | |
| T1 (<12.04) | 134 (41.0) | 97 (40.6) | 1 | 1 | 116 (27.4) | 50 (37.0) | 1 | 1 |
| T2 (12.04–14.76) | 112 (34.3) | 89 (37.2) | 1.10 (0.75–1.61) | 1.33 (0.84–2.11) | 136 (32.1) | 49 (36.3) | 0.84 (0.53–1.33) | 0.95 (0.55–1.64) |
| T3 (≥14.76) | 81 (24.8) | 53 (22.2) | 0.90 (0.59–1.40) | 0.82 (0.48–1.37) | 172 (40.5) | 36 (26.7) | 0.49 (0.30–0.79) | **0.47 (0.26–0.84)** |
| p for trend | | | 0.665 | 0.456 | | | 0.003 | **0.008** |
| *Males* | | | | | | | | |
| T1( <11.67) | 96 (44.9) | 52 (35.9) | 1 | 1 | 69 (24.7) | 33 (33.3) | 1 | 1 |
| T2 (11.67–14.30) | 67 (31.3) | 57 (39.3) | 1.57 (0.96–2.56) | 2.64 (1.34–5.21) | 95 (34.1) | 43 (43.4) | 0.95 (0.55–1.64) | 1.16 (0.60–2.26) |
| T3 ((≥14.30) | 51 (23.8) | 36 (24.8) | 1.30 (0.76–2.25) | 1.53 (0.75–3.15) | 115 (41.2) | 23 (23.3) | 0.42 (0.23–0.70) | **0.41 (0.20–0.85)** |
| p for trend | | | 0.316 | 0.305 | | | 0.003 | **0.009** |
| *Females* | | | | | | | | |
| T1 (<12.68) | 40 (35.4) | 50 (53.2) | 1 | 1 | 45 (31.0) | 13 (36.1) | 1 | 1 |
| T2 (12.68–15.80) | 42 (37.2) | 22 (23.4) | 0.42 (0.22–0.81) | 0.57 (0.26–1.26) | 45 (31.0) | 13 (36.1) | 1.00 (0.42–0.39) | 1.39 (0.47–4.11) |
| T3 (≥15.80) | 31 (27.4) | 22 (23.4) | 0.57 (0.29–1.13) | 0.57 (0.25–1.28) | 55 (37.9) | 10 (27.8) | 0.63 (0.25–1.57) | 0.77 (0.24–2.40) |
| p for trend | | | 0.089 | 0.163 | | | 0.297 | 0.584 |
| **Nonheme iron[a]** | | | | | | | | |
| *All* | | | | | | | | |
| T1 (<9.10) | 140 (42.8) | 108 (45.2) | 1 | 1 | 109 (25.7) | 54 (40.0) | 1 | 1 |
| T2 (9.10–11.02) | 102 (31.2) | 70 (29.3) | 0.89 (0.60–1.32) | 0.91 (0.57–1.46) | 148 (34.9) | 45 (33.3) | 0.61 (0.39–0.98) | 0.55 (0.31–0.97) |
| T3 (≥11.02) | 85 (26.0) | 61 (25.5) | 0.93 (0.62-1.41) | 0.83 (0.50–1.38) | 167 (39.4) | 36 (66.7) | 0.44 (0.27–0.71) | **0.45 (0.25–0.81)** |
| p for trend | | | 0.722 | 0.476 | | | 0.001 | **0.011** |
| *Males* | | | | | | | | |
| T1 (<8.86) | 99 (46.3) | 58 (40.0) | 1 | 1 | 65 (23.3) | 41 (41.4) | 1 | 1 |
| T2 (8.86–10.73) | 66 (30.8) | 47 (32.4) | 1.22 (0.74–1.99) | 1.30 (0.68–2.47) | 99 (35.5) | 32 (32.3) | 0.51 (0.29–0.90) | 0.38 (0.19–0.76) |

| | | | Model I | Model II | | | Model I | Model II |
|---|---|---|---|---|---|---|---|---|
| T3 (≥10.73) | 49 (22.9) | 40 (27.6) | 1.39 (0.82–2.36) | 1.46 (0.73–2.89) | 115 (41.2) | 26 (26.3) | 0.36 (0.20–0.64) | **0.29 (0.14–0.60)** |
| p for trend | | | 0.214 | 0.282 | | | <0.001 | **0.002** |
| *Females* | | | | | | | | |
| T1 (<9.73) | 39 (34.1) | 53 (56.4) | 1 | 1 | 46 (31.7) | 13 (36.1) | 1 | 1 |
| T2 (9.73–11.69) | 40 (35.4) | 16 (17.0) | 0.29 (0.14–0.60) | 0.37 (0.16–0.87) | 46 (31.7) | 8 (22.2) | 0.62 (0.23–1.63) | 0.85 (0.26–2.76) |
| T3 (≥11.69) | 34 (30.1) | 25 (26.6) | 0.54 (0.28–1.05) | 0.54 (0.25–1.21) | 53 (36.6) | 15 (41.7) | 1.00 (0.43–2.32) | 1.44 (0.48–4.33) |
| p for trend | | | 0.081 | 0.153 | | | 0.835 | 0.464 |

[a] *The values are presented as tertiles of iron intake.*

*OR: odds ratio, CI: confidence interval*

**Model I**: *crude model;* **Model II**: *adjusted for age, first degree family history of GC, BMI, alcohol consumption, smoking status, education, occupation, monthly income, H. pylori infection. In the overall subjects, model II was additionally adjusted for gender.*

**Supplementary material Table S4. Association of total iron intake and nonheme iron intake with risk of gastric cancer stratified by first degree family history of GC.**

| Iron (mg/day) | | | Yes | | | | No | |
|---|---|---|---|---|---|---|---|---|
| | No. of controls (%) | No. of cases (%) | Model I [OR (95% CI)] | Model II [OR (95% CI)] | No. of controls (%) | No. of cases (%) | Model I [OR (95% CI)] | Model II [OR (95% CI)] |
| **Total iron[a]** | | | | | | | | |
| *All* | | | | | | | | |
| T1 (<12.04) | 37 (39.0) | 35 (45.5) | 1 | 1 | 213 (32.4) | 112 (37.8) | 1 | 1 |
| T2 (12.04–14.76) | 35 (36.8) | 25 (32.5) | 0.76 (0.38–1.51) | 0.97 (0.37–2.54) | 214 (32.6) | 113 (38.2) | 1.00 (0.73–1.39) | 1.19 (0.81–1.74) |
| T3 (≥14.76) | 23 (24.2) | 17 (22.1) | 0.78 (0.36–1.70) | 0.82 (0.28–2.41) | 230 (35.0) | 71 (24.0) | 0.59 (0.41–0.83) | **0.60 (0.39–0.91)** |
| p for trend | | | 0.518 | 0.728 | | | 0.002 | **0.011** |
| *Males* | | | | | | | | |
| T1( <11.67) | 27 (38.0) | 25 (45.5) | 1 | 1 | 138 (32.6) | 60 (31.9) | 1 | 1 |
| T2 (11.67–14.30) | 26 (36.6) | 17 (30.9) | 0.71 (0.31–1.60) | 1.30 (0.38–4.51) | 137 (32.4) | 83 (44.2) | 1.39 (0.93–2.10) | 1.87 (1.13–3.08) |
| T3 (≥14.30) | 18 (25.4) | 13 (23.6) | 0.78 (0.32–1.91) | 0.94 (0.25–3.53) | 148 (35.0) | 45 (23.9) | 0.70 (0.45–1.10) | 0.74 (0.43–1.28) |
| p for trend | | | 0.569 | 0.933 | | | 0.074 | 0.166 |
| *Females* | | | | | | | | |
| T1 (<12.68) | 12 (50.0) | 10 (45.5) | 1 | 1 | 73 (31.2) | 53 (49.1) | 1 | 1 |
| T2 (12.68–15.80) | 7 (29.2) | 5 (22.7) | 0.86 (0.21–3.55) | 2.70 (0.24–30.4) | 80 (34.2) | 30 (27.8) | 0.52 (0.30–0.89) | 0.74 (0.39–1.42) |
| T3 (≥15.80) | 5 (20.8) | 7 (31.8) | 1.68 (0.41–6.96) | 6.36 (0.45–89.4) | 81 (34.6) | 25 (23.1) | 0.43 (0.24–0.75) | 0.51 (0.26–1.00) |
| p for trend | | | 0.492 | 0.151 | | | 0.004 | 0.053 |
| **Nonheme Iron[a]** | | | | | | | | |
| *Total* | | | | | | | | |
| T1 (<9.10) | 42 (44.2) | 36 (46.8) | 1 | 1 | 209 (31.8) | 126 (42.6) | 1 | 1 |
| T2 (9.10–11.02) | 31 (32.6) | 26 (33.8) | 0.98 (0.49–1.94) | 1.06 (0.42–2.72) | 218 (33.2) | 88 (29.7) | 0.67 (0.48–0.93) | 0.72 (0.49–1.07) |
| T3 (≥11.02) | 22 (23.2) | 15 (19.4) | 0.80 (0.36–1.76) | 0.90 (0.29–2.82) | 230 (35.0) | 82 (27.7) | 0.59 (0.42–0.83) | **0.61 (0.41–0.91)** |
| p for trend | | | 0.583 | 0.874 | | | 0.003 | **0.019** |
| *Males* | | | | | | | | |
| T1 (<8.86) | 27 (38.0) | 26 (47.3) | 1 | 1 | 139 (32.9) | 73 (38.8) | 1 | 1 |
| T2 (8.86–10.73) | 27 (38.0) | 18 (32.7) | 0.69 (0.31–1.55) | 0.73 (0.23–2.32) | 137 (32.4) | 60 (31.9) | 0.83 (0.55–1.26) | 0.79 (0.48–1.31) |

| | | | Model I | Model II | | | Model I | Model II |
|---|---|---|---|---|---|---|---|---|
| T3 (≥10.73) | 17 (23.9) | 11 (20.0) | 0.67 (0.27–1.70) | 0.82 (0.21–3.31) | 147 (34.7) | 55 (29.3) | 0.71 (0.47–1.08) | 0.65 (0.39–1.09) |
| p for trend | | | 0.375 | 0.755 | | | 0.117 | 0.107 |
| *Females* | | | | | | | | |
| T1 (<9.73) | 12 (50.0) | 8 (36.4) | 1 | 1 | 73 (31.2) | 58 (53.7) | 1 | 1 |
| T2 (9.73–11.69) | 8 (33.3) | 7 (31.8) | 1.31 (0.34–5.08) | 1.16 (0.09–14.95) | 78 (33.3) | 17 (15.7) | 0.27 (0.15–0.51) | 0.37 (0.18–0.77) |
| T3 (≥11.69) | 4 (16.7) | 7 (31.8) | 2.63 (0.57–12.0) | 14.13 (0.71–280.75) | 83 (35.5) | 33 (30.6) | 0.50 (0.29–0.85) | 0.63 (0.33–1.21) |
| p for trend | | | 0.214 | 0.082 | | | 0.023 | 0.226 |

[a] *The values are presented as tertiles of iron intake.*

*OR: odds ratio, CI: confidence interval*

**Model I**: *crude model;* **Model II**: *adjusted for age, BMI, alcohol consumption, smoking status, education, occupation, monthly income, H. pylori infection. In the overall subjects, model II was additionally adjusted for gender.*

**Supplementary material Table S5. Associations of *TFRC* rs9846149 polymorphism with risk of gastric cancer**

| rs9846149 | Model | Genotype | No (%) | | OR (95% CI) | | |
|---|---|---|---|---|---|---|---|
| | | | Controls | Cases | Model I | Model II | Model III |
| **Total** | **Recessive** | **CC/GC** | 716 (95.0) | 358 (95.7) | 1 | 1 | 1 |
| | | **GG** | 38 (5.0) | 16 (4.3) | 0.84 (0.46–1.53) | 0.87 (0.46-1.67) | 0.89 (0.45–1.76) |
| **Males** | **Recessive** | **CC/GC** | 471 (95.0) | 235 (96.3) | 1 | 1 | 1 |
| | | **GG** | 25 (5.0) | 9 (3.7) | 0.72 (0.33–1.57) | 0.73 (0.31-1.73) | 0.70 (0.28–1.75) |
| **Females** | **Recessive** | **CC/GC** | 245 (95.0) | 123 (94.6) | 1 | 1 | 1 |
| | | **GG** | 13 (5.0) | 7 (5.4) | 1.07 (0.42–2.76) | 1.35 (0.48-3.77) | 1.38 (0.49–4.36) |

*C: major allele; G: minor allele*

*CC/GC: dominant phenotypes; GG: recessive phenotypes*

*OR: odds ratio, CI: confidence interval*

***Model I**: crude model; **Model II**: adjusted for age, BMI, first degree family history of GC, smoking status, alcohol consumption, education, occupation, monthly income; **Model II**: additionally adjusted for Helicobacter pylori infection. In the overall subjects, models II, and III were additionally adjusted for gender.*