**Supplementary Table 1. Risk of brain cortical thinningin males**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | 　 | Total | 　 | Frontal Lobe | 　 | Temporal Lobe | 　 | Parietal Lobe | 　 | Occipital Lobe |
| 　 | B | SE | P-value | 　 | *B* | SE | P-value | 　 | B | SE | P-value | 　 | B | SE | P-value | 　 | B | SE | P-value |
| Age, years | 　 | -0.004 | 0.001 | <0.001 | 　 | -0.004 | 0.001 | <0.001 | 　 | -0.003 | 0.001 | <0.001 | 　 | -0.005 | 0.001 | <0.001 | 　 | -0.004 | 0.001 | <0.001 |
| Education, years |  | 0.001 | 0.001 | 0.461 |  | 0.001 | 0.001 | 0.279 |  | 0.002 | 0.001 | 0.137 |  | <0.001 | 0.001 | 0.997 |  | -0.001 | 0.001 | 0.419  |
| Alcohol intake |  | 0.003 | 0.009 | 0.711 |  | 0.006 | 0.01 | 0.55 |  | 0.009 | 0.013 | 0.501 |  | <0.001 | 0.012 | 0.982 |  | 0.008 | 0.01 |  0.408 |
| Smoking status |  | -0.011 | 0.006 | 0.066 |  | -0.009 | 0.006 | 0.144 |  | 0.004 | 0.009 | 0.657 |  | -0.02 | 0.008 | 0.01 |  | -0.009 | 0.007 |  0.163 |
| ICV(mL) |  | <0.001 | <0.001 | <0.001 |  | <0.001 | <0.001 | <0.001 |  | <0.001 | <0.001 | 0.006 |  | <0.001 | <0.001 | <0.001 |  | <0.001 | <0.001 | <0.001 |
| CRP (mg/dL) |  | -0.007 | 0.028 | 0.813 |  | -0.001 | 0.031 | 0.981 |  | -0.019 | 0.042 | 0.643 |  | <0.001 | 0.038 | 0.996 |  | 0.053 | 0.032 |  0.099 |
| Metabolic syndrome score | 　 | 0.007 | 0.003 | 0.003 | 　 | 0.01 | 0.003 | <0.001 | 　 | 0.014 | 0.004 | <0.001 | 　 | 0.003 | 0.003 | 0.397 | 　 | 0.007 | 0.003 |  0.011 |

B (SE) = beta value (standard error)

Multiple linear regressions were performed after controlling for *Helicobacter pylori* infection, age, years of education, alcohol intake, smoking status,intracranial volume(ICV),C-reactive protein(CRP), and metabolic syndromescore.