**Changes in circulating kisspeptin levels during each trimester in women with antenatal complications**

**Supplemental Tables**

**Supplemental Tables**

**Supplemental Table 1**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | | r2 | | Coefficient | | P-value | | 95% CI | |
| Gestational age (weeks) | | **0.549** | | **0.154** | | **<0.0001** | | **0.115 to 0.163** | |
| Maternal age (years) | | 0.550 | | 0.009 | | 0.318 | | -0.008 to 0.025 | |
| Maternal Ethnicity (vs Caucasian) | | 0.553 | |  | |  | |  | |
| Afro-Caribbean | |  | | **-0.395** | | **0.004** | | **-0.667 to -0.123** | |
| Asian | |  | | -0.033 | | 0.825 | | -0.329 to 0.262 | |
| Other | |  | | -0.172 | | 0.314 | | -0. 507 to 0.163 | |
| Maternal BMI (kg/m2) | | **0.553** | | **-0.027** | | **0.002** | | **-0.044 to -0.010** | |
| Cigarette smoker | | 0.550 | | -0.001 | | 0.0635 | | -0.003 to 0.002 | |
| Parity | | 0.549 | | -0.025 | | 0.591 | | -0.116 to 0.066 | |
|  |  | |  | |  | |  | |

**Supplemental Table 1. Factors affecting plasma kisspeptin levels in healthy controls.** Multivariablelinear regression of plasma kisspeptin with gestational age, ethnicity, maternal BMI, maternal smoking during pregnancy and parity. Because gestational age was a highly significant predictor of plasma kisspeptin, it was included in the models of other baseline variables. Significant factors are presented in bold. **Abbreviations**: BMI, body mass index; kg, kilograms; m, metres.

**Supplemental Table 2**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Crude |  | Adjusted |  |
|  | **OR (95%CI)** | **P** | **OR (95%CI)** | **P** |
| Plasma kisspeptin (nmol/L) | 0.93 (0.84-1.04) | 0.197 | 0.93 (0.79-1.09) | 0.355 |
| Gestational age (weeks) | 0.99 (0.97-1.01) | 0.429 | 1.00 (0.97-1.03) | 0.859 |
| Maternal age (years) | 1.05 (0.02-1.09) | 0.004 | **1.05 (1.00-1.09)** | **0.031** |
| Maternal Ethnicity  (vs Caucasian) |  |  |  |  |
| Afro-Caribbean | 2.86 (1.67-4.88) | <0.0001 | **2.58 (1.42-4.70)** | **0.002** |
| Asian | 7.55 (4.74-12.03) | <0.0001 | **6.07 (3.74-9.83)** | **<0.0001** |
| Other | 3.87 (2.11-7.08) | <0.0001 | **4.31 (2.26-8.22)** | **<0.0001** |
| Maternal BMI (kg/m2) | 1.08 (1.05-1.12) | <0.0001 | **1.09 (1.05-1.13)** | **<0.0001** |
| Cigarette smoker | 0.98 (0.97-0.99) | 0.005 | **0.99 (0.98-1.00)** | **0.017** |
| Parity | 0.72 (0.56-0.92) | 0.009 | **0.55 (0.41-0.72)** | **<0.0001** |

**Supplemental Table 2. Association between plasma kisspeptin** **and Gestational Diabetes Mellitus (GDM).** Logistic regression was used to assess the association between (1) kisspeptin with GDM diagnosis in univariable analysis and (2) after adjustment for gestational age (estimated using CRL), maternal age, ethnicity, BMI, smoking status and parity. Odds ratios denote odds of GDM diagnosis for every 1nmol/L increase in plasma kisspeptin. A p-value of <0.05 was classified as significant. Bold numbers indicate statistically significant predictors of GDM after adjustment. **Abbreviations**: OR, odds ratio; 95% CI, 95% confidence interval, BMI; body mass index; kg, kilograms; m2, metres squared and CRL, crown-rump length.

**Supplemental Table 3**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Crude |  | Adjusted |  |
|  | **OR (95%CI)** | **P** | **OR (95%CI)** | **P** |
| Plasma kisspeptin (nmol/L) | 1.08 (0.94-1.23) | 0.284 | **1.20 (1.01-1.42)** | **0.036** |
| Gestational age (weeks) | 0.99 (0.95-1.02) | 0.473 | 0.96 (0.91-1.01) | 0.095 |
| Maternal age (years) | 0.91 (0.86-0.96) | 0.001 | **0.86 (0.81-0.92)** | **<0.0001** |
| Maternal Ethnicity  (vs Caucasian) |  |  |  |  |
| Afro-Caribbean | 1 | - | 1 | - |
| Asian | 0.73 (0.25-2.11) | 0.565 | 0.97 (0.32-2.91) | 0.957 |
| Other | 1.45 (0.55-3.82) | 0.455 | 1.35 (0.49-3.67) | 0.562 |
| Maternal BMI (kg/m2) | 0.99 (0.92-1.05) | 0.672 | 1.01 (0.94-1.08) | 0.822 |
| Cigarette smoker | 1.00 (1.00-1.01) | 0.329 | 1.00 (0.99-1.01) | 0.584 |
| Parity | 1.06 (0.76-1.49) | 0.713 | 1.19 (0.83-1.71) | 0.340 |

**Supplemental Table 3. Association between plasma kisspeptin and Preterm Birth (PTB).** Logistic regression was used to assess the association between (1) kisspeptin with PTB diagnosis in univariable analysis and (2) after adjustment for gestational age (estimated using CRL), maternal age, ethnicity, BMI, smoking status and parity. Odds ratios denote odds of PTB for every 1nmol/L increase in plasma kisspeptin. A p-value of <0.05 was classified as significant. Bold numbers indicate statistically significant predictors of PTB after adjustment. **Abbreviations**: OR, odds ratio; 95% CI, 95% confidence interval, BMI; body mass index; kg, kilograms; m2, metres squared; and CRL, crown-rump length.