**Supplementary table 1.** Characteristics of subjects by subgroups

|  | GDM group | Healthy group(N=48) \* | P † | P ‡ | P § |
| --- | --- | --- | --- | --- | --- |
| Insulin injection(N=17) \* | Exercise and diet(N=31) \* | All GDM (N=48) \* |
| **Mothers** |  |  |  |  |  |  |  |
| Age (years) | 32.18 ± 4.67 || | 32.13 ± 3.38 | 32.15 ± 3.84 | 32.04 ± 3.58 | 0.891 | 0.915 | 0.914 |
| One-hour 50-g GLT (mmol/L)  | 12.48 ± 2.43 | 11.10 ± 2.33 | 11.49 ± 2.42 | 6.82 ± 1.29 | <0.001 | <0.001 | <0.001 |
| OGTT ¶ |  |  |  |  |  |  |  |
| Fasting | 6.30 ± 1.19 | 5.44 ± 0.69 | 5.75 ± 0.98 | 4.40 ± 0.25 | <0.001 | <0.001 | <0.001 |
| 1 hour | 11.49 ± 1.08 | 10.83 ± 1.58 | 10.96 ± 1.51 | 7.76 ± 1.48 | <0.001 | <0.001 | <0.001 |
| 2 hour | 9.82 ± 1.39 | 9.77 ± 1.52 | 9.78 ± 1.47 | 6.54 ± 1.16 | <0.001 | <0.001 | <0.001 |
| 3 hour | 7.35 ± 1.74 | 7.09 ± 2.02 | 7.14 ± 1.95 | 5.61 ± 1.15 | 0.041 | 0.044 | 0.059 |
| Gestational weight gain (kg) | 12.88 ± 6.46 | 13.94 ± 5.90 | 13.56 ± 6.05 | 17.06 ± 5.03 | 0.004 | 0.009 | 0.016 |
| Gestational age (weeks) | 38.41 ± 0.62 | 38.65 ± 0.75 | 38.56 ± 0.71 | 38.92 ± 0.99 | 0.066 | 0.054 | 0.230 |
| Delivery mode |  |  |  |  |  |  |  |
| Vaginal delivery (%)  | 6% | 27% | 21% | 31% | 0.245 | 0.037 | 0.834 |
| Caecarean section (%) | 94% | 73% | 79% | 69% |  |  |  |
| Body Mass Index |  |  |  |  |  |  |  |
| Pre-pregnancy | 24.98 ± 2.52 | 21.75 ± 2.97 | 22.87 ± 3.20 | 20.71 ± 3.27 | 0.002 | <0.001 | 0.169 |
| Pre-delivery | 29.66 ± 2.49 | 27.07 ± 3.75 | 27.97 ± 3.56 | 27.22 ± 3.31 | 0.293 | 0.009 | 0.855 |
| Day 42 | 26.45 ± 2.40 | 23.25 ± 3.26 | 24.17 ± 3.34 | 23.42 ± 3.49 | 0.339 | 0.012 | 0.843 |
| Day 90 | 25.84 ± 2.76 | 23.14 ± 3.24 | 23.97 ± 3.30 | 21.94 ± 2.65 | 0.009 | 0.001 | 0.151 |
| **Infants** |  |  |  |  |  |  |  |
| Sex (% of boys) | 50% | 57% | 56% | 60% | 0.679 | 0.591 | 0.835 |
| Weight (g) |  |  |  |  |  |  |  |
| Birth  | 3496.47 ± 350.98 | 3453.71 ± 466.66 | 3468.85 ± 425.87 | 3342.50 ± 440.36 | 0.156 | 0.198 | 0.288 |
| Day 42 | 4860.27 ± 388.12 | 4992.30 ± 499.11 | 4954.08 ± 468.45 | 5157.09 ± 549.91 | 0.076 | 0.097 | 0.205 |
| Day 90 | 6489.56 ± 502.73 | 6750.33 ± 600.52 | 6672.10 ± 577.24 | 6857.18 ± 692.20 | 0.232 | 0.138 | 0.547 |
| Height (cm) |  |  |  |  |  |  |  |
| Birth  | 50.29 ± 1.57 | 50.03 ± 1.62 | 50.13 ± 1.59 | 49.90 ± 1.60 | 0.484 | 0.379 | 0.714 |
| Day 42 | 56.47 ± 1.43 | 56.80 ± 2.02 | 56.71 ± 1.86 | 57.07 ± 2.18 | 0.425 | 0.395 | 0.611 |
| Day 90 | 61.78 ± 1.72 | 62.95 ± 2.29 | 62.60 ± 2.18 | 63.02 ± 2.04 | 0.397 | 0.094 | 0.901 |
| Head circumference |  |  |  |  |  |  |  |
| Birth  | 34.88 ± 0.98 | 34.49 ± 1.11 | 34.64 ± 1.06 | 34.30 ± 1.03 | 0.156 | 0.065 | 0.503 |
| Day 42 | 37.63 ± 1.16 | 38.48 ± 1.15 | 38.23 ± 1.20 | 38.39 ± 1.07 | 0.542 | 0.052 | 0.741 |
| Day 90 | 39.98 ± 0.89 | 40.68 ± 0.90 | 40.46 ± 0.94 | 40.68 ± 0.97 | 0.335 | 0.051 | 0.979 |

GDM, gestational diabetes mellitus; GLT, glucose loading test; OGTT, oral glucose tolerance test.

\* The number of subjects at recruitment and first follow-up. The number of subjects at the second and third follow-ups is shown in Figure 1. Mann-Whitney U test was used to calculate the difference between subgroups.

† Subjects with GDM vs. healthy subjects.

‡ Healthy subjects vs. subjects with GDM who received insulin injection.

§ Healthy subjects vs. subjects with GDM who did not receive insulin injection.

|| Mean±SD for all the continuous variables.

¶ All women with GDM and eight healthy women underwent OGTT.