**Supplementary Table 1:** The demographic characteristics of the women not exposed to Ramadan (n=48) and those having had any exposure to Ramadan (n=297).*

|                | All Ramadan coincided outside the pregnancy (n=48) | Ever exposed to Ramadan (any days coincided ≥1) (n=297) | P value |
|----------------|----------------------------------------------------|--------------------------------------------------------|---------|
| N              | 345                                                | 345                                                    |         |
| Maternal Demographics |                                                   |                                                        |         |
| Ethnicity (%) | 1. Arab                                           | 35.4                                                   | 41.4    | p=0.5   |
|                | 2. Indian                                         | 52.1                                                   | 41.1    |         |
|                | 3. Asian                                          | 10.4                                                   | 9.4     |         |
|                | 4. Other                                          | 2.1                                                    | 8.1     |         |
| Age at pregnancy (years) | 30.8 ± 4.5                                         | 31.3 ± 5.2                                             | p=0.5   |
| Initial Weight (kg.) | 64.2 ± 10.9                                        | 66.3 ± 14.6                                            | p=0.4   |
| Final Weight (kg.) | 75.6 ± 10.5                                        | 78.8 ± 14.2                                            | p=0.1   |
| Weight gain during pregnancy (kg) | 12.2 ± 6.3                                         | 12.2 ± 5.5                                             | p=1.0   |
| Pre pregnancy BMI (kg/m²) | 25.2 ± 4.3                                         | 26.4 ± 5.7                                             | p=0.2   |
| Family History (%) | 67.3                                               | 59.0                                                   | p=0.3   |
| Parity(%)      | 0 (Primip)                                        | 44.0                                                   | 36.5    | p=0.5   |
|                | 1                                                 | 22.0                                                   | 28.0    |         |
|                | ≥2 (Multip)                                       | 34.0                                                   | 35.5    |         |
| GDM Diagnosis & Intervention |                                                   |                                                        |         |
| OGTT Results:  | 0 minutes                                         | 4.8 ± 0.6                                              | 5.0 ± 0.9 | p=0.2   |
|                | 60 minutes                                         | 10.0 ± 1.5                                             | 10.3 ± 1.7 | p=0.2   |
|                | 120 minutes                                        | 8.4 ± 1.5                                              | 8.7 ± 1.6 | p=0.3   |
|                | AUC                                               | 995 ± 117                                              | 1017 ± 154 | p=0.4   |
| Gestation at diagnosis of GDM (weeks) | 24.3 ± 7.8                                         | 25.5 ± 6.3                                             | p=0.2   |
| Insulin Treatment (%) | 56.9                                               | 56.5                                                   | p=0.9   |
| Gestation Insulin commenced (weeks) | 28.9 ± 5.0                                         | 28.4 ± 6.4                                             | p=0.7   |
| Maximum insulin dose (units) | 34[16-54]                                          | 34[16-62]                                              | P=0.9   |

*Data are %; mean ± SD; or median [IQR].
### Supplementary Table 2: Relationship between Ramadan exposure in GDM and Neonatal outcomes LGA and SGA

| Analysis | LGA | SGA |
|----------|-----|-----|
|          | OR  | 95% CI | P   | OR  | 95% CI | P   |
|          |     |       |     |     |       |     |
| **Days exposure analysis** |     |       |     |     |       |     |
| Model 1* |     |       |     |     |       |     |
| Never exposed to Ramadan | Ref. |       |     | Ref. |       |     |
| 1–10 days exposure | 0.1 | 0-100 | 0.9 | 0.1 | 0-100 | 0.9 |
| 11–20 days exposure | 0.7 | 0.07-6.8 | 0.7 | 1.0 | 0.2-4.5 | 0.9 |
| 21–30 days exposure | 1.6 | 0.4-5.3 | 0.5 | 0.4 | 0.1-1.1 | 0.08 |
| Model 2¶ |     |       |     |     |       |     |
| Never exposed to Ramadan | Ref. |       |     | Ref. |       |     |
| 1–10 days exposure | 0.1 | 0-10 | 1.0 | 0.1 | 0-10 | 0.7 |
| 11–20 days exposure | 0.6 | 0.06-6.4 | 0.7 | 1.0 | 0.2-4.4 | 1.0 |
| 21–30 days exposure | 1.6 | 0.5-5.6 | 0.5 | 0.4 | 0.1-1.1 | 0.07 |
| **Hours exposure (duration of daily fasting) analysis** |     |       |     |     |       |     |
| Model 1* |     |       |     |     |       |     |
| Never exposed to Ramadan | Ref. |       |     | Ref. |       |     |
| Fasting period/day >12 – 13 hours | 1.0 | 0.2-6.4 | 1.0 | N/A | N/A | N/A |
| Fasting period/day >13 – 14 hours | 1.1 | 0.3-4.8 | 0.9 | N/A | N/A | N/A |
| Fasting period/day >14 – 15 hours | 1.5 | 0.3-7.1 | 0.6 | N/A | N/A | N/A |
| Fasting period/day >15 – 16 hours | 2.2 | 0.6-8.5 | 0.2 | N/A | N/A | N/A |
| Model 2§ |     |       |     |     |       |     |
| Never exposed to Ramadan | Ref. |       |     | Ref. |       |     |
| Fasting period/day >12 – 13 hours | 0.4 | 0.02-5.1 | 0.4 | N/A | N/A | N/A |
| Fasting period/day >13 – 14 hours | 0.6 | 0.08-3.9 | 0.6 | N/A | N/A | N/A |
| Fasting period/day >14 – 15 hours | 2.8 | 0.4-18.2 | 0.3 | N/A | N/A | N/A |
| Fasting period/day >15 – 16 hours | 1.1 | 0.2-6.2 | 0.9 | N/A | N/A | N/A |
| **Trimester exposure analysis** |     |       |     |     |       |     |
| Model 1* |     |       |     |     |       |     |
| Never exposed to Ramadan | Ref. |       |     | Ref. |       |     |
| 1st Trimester exposure | 1.1 | 0.2-5.2 | 0.9 | 0.5 | 0.1-1.9 | 0.3 |
| 2nd Trimester exposure | 1.1 | 0.2-4.8 | 0.9 | 0.3 | 0.07-1.3 | 0.1 |
| 3rd Trimester exposure | 1.8 | 0.4-7.5 | 0.4 | 0.5 | 0.1-2.0 | 0.3 |
| Model 2§ |     |       |     |     |       |     |
| Never exposed to Ramadan | Ref. |       |     | Ref. |       |     |
| 1st Trimester exposure | 0.5 | 0.05-4.7 | 0.5 | 0.6 | 0.1-2.6 | 0.5 |
| 2nd Trimester exposure | 0.7 | 0.09-5.1 | 0.7 | 0.2 | 0.04-1.2 | 0.08 |
| 3rd Trimester exposure | 1.8 | 0.3-12.0 | 0.5 | 0.5 | 0.1-2.3 | 0.4 |

* Unadjusted model
¶ Adjusted for gestational age at delivery, gender, ethnicity, maternal age, and hypertensive disorders of pregnancy.
§ Adjusted for gestational age at delivery, gender, ethnicity, maternal age, mother weight gain, patient weight before pregnancy, and hypertensive disorders of pregnancy.
**Supplementary Table 3: Relationship between Ramadan exposure in GDM and Birth weight**

| Analysis                      | Birth weight | T value | P    |
|-------------------------------|--------------|---------|------|
|                               |              |         |      |
| **Days exposure analysis**    |              |         |      |
| Model 1*                      |              |         |      |
| Never exposed to Ramadan      | Ref.         |         |      |
| 1–10 days exposure            | 0.6          | 0.5     |      |
| 11-20 days exposure           | 0.8          | 0.4     |      |
| 21-30 days exposure           | 1.2          | 0.2     |      |
| Model 2§                      |              |         |      |
| Never exposed to Ramadan      | Ref.         |         |      |
| 1–10 days exposure            | 0.9          | 0.3     |      |
| 11-20 days exposure           | -0.3         | 0.8     |      |
| 21-30 days exposure           | 0.5          | 0.6     |      |
| **Hours exposure (duration of daily fasting) analysis** | | | |
| Model 1*                      |              |         |      |
| Never exposed to Ramadan      | Ref.         |         |      |
| Fasting period/day >12 – 13 hours | -0.2      | 0.8     |      |
| Fasting period/day >13 – 14 hours | 0.5          | 0.6     |      |
| Fasting period/day >14 – 15 hours | 1.0          | 0.3     |      |
| Fasting period/day >15 – 16 hours | 2.0          | 0.05    |      |
| Model 2§                      |              |         |      |
| Never exposed to Ramadan      | Ref.         |         |      |
| Fasting period/day >12 – 13 hours | 0.1          | 0.9     |      |
| Fasting period/day >13 – 14 hours | -0.3         | 0.8     |      |
| Fasting period/day >14 – 15 hours | 0.7          | 0.5     |      |
| Fasting period/day >15 – 16 hours | 0.9          | 0.4     |      |
| **Trimester exposure analysis** |             |         |      |
| Model 1*                      |              |         |      |
| Never exposed to Ramadan      | Ref.         |         |      |
| 1st Trimester exposure        | 0.2          | 0.8     |      |
| 2nd Trimester exposure        | 1.3          | 0.2     |      |
| 3rd Trimester exposure        | 1.9          | 0.06    |      |
| Model 2§                      |              |         |      |
| Never exposed to Ramadan      | Ref.         |         |      |
| 1st Trimester exposure        | -0.8         | 0.5     |      |
| 2nd Trimester exposure        | 0.4          | 0.7     |      |
| 3rd Trimester exposure        | 1.2          | 0.2     |      |

* Unadjusted model
§ Adjusted for gestational age at delivery, gender, ethnicity, maternal age, mother weight gain, patient weight before pregnancy, and hypertensive disorders of pregnancy.