

**Supplementary Table1:** The demographic characteristics of the women not exposed to Ramadan (n=48) and those having had any exposure to Ramadan (n=297).\*

N= 345		All Ramadan coincided outside the pregnancy (n=48)	Ever exposed to Ramadan (any days coincided $\geq$ 1) (n=297)	P value
<b>Maternal Demographics</b>				
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 $\pm$ 4.5	31.3 $\pm$ 5.2	p=0.5
Initial Weight (kg.)		64.2 $\pm$ 10.9	66.3 $\pm$ 14.6	p=0.4
Final Weight (kg.)		75.6 $\pm$ 10.5	78.8 $\pm$ 14.2	p=0.1
Weight gain during pregnancy (kg)		12.2 $\pm$ 6.3	12.2 $\pm$ 5.5	p=1.0
Pre pregnancy BMI (kg/m <sup>2</sup> )		25.2 $\pm$ 4.3	26.4 $\pm$ 5.7	p=0.2
Family History (%)		67.3	59.0	p=0.3
Parity(%):				p=0.5
0 (Primip)		44.0	36.5	
1		22.0	28.0	
$\geq$ 2 (Multip)		34.0	35.5	
<b>GDM Diagnosis &amp; Intervention</b>				
OGTT Results:	0 minutes	4.8 $\pm$ 0.6	5.0 $\pm$ 0.9	p=0.2
	60 minutes	10.0 $\pm$ 1.5	10.3 $\pm$ 1.7	p=0.2
	120 minutes	8.4 $\pm$ 1.5	8.7 $\pm$ 1.6	p=0.3
	AUC	995 $\pm$ 117	1017 $\pm$ 154	p=0.4
Gestation at diagnosis of GDM (weeks)		24.3 $\pm$ 7.8	25.5 $\pm$ 6.3	p=0.2
Insulin Treatment (%)		56.9	56.5	p=0.9
Gestation Insulin commenced (weeks)		28.9 $\pm$ 5.0	28.4 $\pm$ 6.4	p=0.7
Maximum insulin dose (units)		34[18-54]	34[16-62]	P=0.9

\*Data are %; mean  $\pm$  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	
<b>Days exposure analysis</b>	Model 1*			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¶			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
<b>Hours exposure (duration of daily fasting) analysis</b>	Model 1*			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§			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	
<b>Trimester exposure analysis</b>	Model 1*			Model 1*			
	Never exposed to Ramadan	Ref.		Ref.			
	1 <sup>st</sup> Trimester exposure	1.1	0.2-5.2	0.9	0.5	0.1-1.9	0.3
	2 <sup>nd</sup> Trimester exposure	1.1	0.2-4.8	0.9	0.3	0.07-1.3	0.1
	3 <sup>rd</sup> Trimester exposure	1.8	0.4-7.5	0.4	0.5	0.1-2.0	0.3
	Model 2§			Model 2§			
	Never exposed to Ramadan	Ref.		Ref.			
	1 <sup>st</sup> Trimester exposure	0.5	0.05-4.7	0.5	0.6	0.1-2.6	0.5
2 <sup>nd</sup> Trimester exposure	0.7	0.09-5.1	0.7	0.2	0.04-1.2	0.08	
3 <sup>rd</sup> 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	
<b>Days exposure analysis</b>	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
<b>Hours exposure (duration of daily fasting) analysis</b>	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	<b>0.05</b>
	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	
<b>Trimester exposure analysis</b>	Model 1*		
	Never exposed to Ramadan	Ref.	
	1 <sup>st</sup> Trimester exposure	0.2	0.8
	2 <sup>nd</sup> Trimester exposure	1.3	0.2
	3 <sup>rd</sup> Trimester exposure	1.9	0.06
	Model 2§		
	Never exposed to Ramadan	Ref.	
	1 <sup>st</sup> Trimester exposure	-0.8	0.5
2 <sup>nd</sup> Trimester exposure	0.4	0.7	
3 <sup>rd</sup> 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.