

Table 1: Neonatal demographic data for Infants of diabetic mothers (IDMs) and control groups.

Item	Group I IDMs (n=70)	Group II Control (n=40)	P value
Gestational age(Weeks)	38.88 ± 0.843	38.1 ± 0.901	
Mean ± SD Range	(40 - 38)	(40 – 38)	0.186
Birth weight (Kg)			
Mean ± SD	3.45 ± 0.535	2.9 4 ± 0.228	0.001**
Range	(2.6 - 4.2)	(2.35 - 3.4)	
Mode of delivery			
NVD CS	13 (19 %)	15 (38 %)	0.041*
	57 (81 %)	25 (62%)	
Sex			
Male Female	32 (45.7 %)	20 (50 %)	0.527
	38 (54.3 %)	20 (50 %)	

Cs, caesarean section; NVD, spontaneous vaginal delivery; SD, standard deviation.

*: significant difference at p value < 0.05

Table 2 : Studied laboratory data of IDMs and control groups.

Item	Group I IDMs (n=70)	Group II Control (n=40)	P value
Neonatal HB (gm %)			
Mean $\pm$ SD Range	15.5 $\pm$ 0.96 (14 – 17)	13.9 $\pm$ 0.65 (12 – 15)	0.041*
Neonatal Hematocrit (%)			
Mean $\pm$ SD Range	47.9 $\pm$ 2.68 (40.5 – 57)	43.7 $\pm$ 2.20 (35 – 46)	0.001**
Neonatal WBCs (cu.mm$\times 10^9$ /L) Mean $\pm$ SD			
Range	11 $\pm$ 3.26 (5.5 – 13)	10.7 $\pm$ 2.98 (5 – 12.4)	0.082
Neonatal Platelets (1000's/cu.mm)			
Mean $\pm$ SD			
Range	270 $\pm$ 1.43 (225 – 310)	268 $\pm$ 1.63 (216 – 304)	0.164
Neonatal blood glucose (mg/dl)			
Mean $\pm$ SD	34.6 $\pm$ 11.3	77.2 $\pm$ 19.8	0.05*
Cord blood HbA1c (%)			
Mean $\pm$ SD Range	7.49 $\pm$ 0.95 (5.7 – 8.9)	4.218 $\pm$ 0.165 (4.0 – 4.4)	0.027*
Cord blood MCP-1			
Mean $\pm$ SD Range	389.4 $\pm$ 97.5 (243 – 590)	200.85 $\pm$ 37.94 (104 – 280)	0.024*

Student' test to compare between mean of two groups of numerical (Parametric) data.

Chi square test for qualitative data between groups

*: significant difference at p value < 0.05

HB, hemoglobin ; WBCs, White blood cells; HbA1c, glycated hemoglobin A1c; Monocyte chemotactic protein-1 (MCP-1).

Table 3: echocardiographic data in IDMs and controls

Item	Group I IDMs (n=70) Mean ± SD	Group II Control (n=40) Mean ± SD	P value
IVSd(mm)	4.157 ± 0.63	3.140 ± 0.11	0.007**
IVSs(mm)	4.906 ± 0.54	4.22 ± 0.91	0.001**
LVPW(mm)	3.85 ± 1.27	3.20 ± 0.37	0.002**
LVDd(mm)	16.2 ± 1.3	15.1± 0.97	0.0035**
LVDs(mm)	11.4 ± 1.04	9.120 ± 0.53	0.001**
RVDd(mm)	41.62± 2.47	37.3 ± 2.24	0.007**
AOV(mm)	9.54 ± 1.15	9.13 ± 0.854	0.418
FS (%)	36.11 ± 5.31	41.2 ± 0.992	0.041*
EF (%)	69.12 ±3.98	73.53 ± 4.71	0.049*

AOV, aortic valve diameter; FS, fractional shortening ; EF, ejection fraction; IVSd, interventricular septal end-diastolic thickness; IVSs, interventricular septal end-systolic thickness; LVDd, left ventricular end-diastolic dimension; LVDs, left ventricular end-systolic dimension; LVPW, left ventricular posterior wall thickness; RVDd, right ventricular end-diastolic dimension; SD, standard deviation.

Chi square test for qualitative data between groups

*: significant difference at p value < 0.05

Table 4: Correlation between cord blood HbA1c, cord blood MCP – 1, and echocardiographic measures and birth weight in IDMs group .

Item	Cord blood HbA1c		Cord blood MCP - 1	
	r	p	r	p
IVSd	0.724	0.000*	0.793	0.000*
IVSs	0.605	0.000*	0.687	0.000*
LVPW	0.298	0.012*	0.465	0.000*
LVDd	0.433	0.000*	0.252	0.035*
LVDs	0.544	0.000*	0.557	0.000*
RVDd	0.604	0.000*	0.548	0.000*
AOV	0.673	0.000*	0.000*	0.000*
FS (%)	-0.551-	0.000*	-0.666-	0.000*
EF (%)	-0.688-	0.000*	-0.666-	0.000*
Birth weight	0.706	0.000	0.734	0.000

*: significant difference at p value < 0.05

Table 5: correlation between birth weight and echocardiographic measurements.

Item	Birth weight	
	r	p
IVSd	0.768	0.001**
IVSs	0.859	0.001**
LVPW	0.412	0.001**
LVDD	0.792	0.001**
LVDs	0.781	0.001**
RVDd	0.820	0.001**
AOV	0.784	0.001**
FS (%)	- 0.612	0.004**
EF (%)	- 0.537	0.063

AOV, aortic valve diameter; FS, fractional shortening , EF, ejection fraction ;HbA1c, glycated hemoglobin A1c; IVSd, interventricular septal end-diastolic thickness; IVSs, interventricular septal end-systolic thickness; LVDD, left ventricular end-diastolic dimension; LVDs, left ventricular end- systolic dimension; LVPW, left ventricular posterior wall thickness; p, probability value RVDd, right ventricular end-diastolic dimension Monocyte chemotactic protein-1 (MCP-1) .

Pearson's correlations were performed to asses unadjusted association between the Echocardiographic measurements with birth weight, maternal HbA1c and cord blood MCP- 1.

*: significant difference at p value < 0.05