

RESULTS

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Our study included 62 primigravidae, pregnant in the third trimester and admitted in labour. These included 30 normal pregnancy control group GI, 17 with mild preeclampsia (GII) and 15 with severe preeclampsia. GIII.

The results will be presented under 3 headings :

- I - Clinical results.
- II - Laboratory findings.
- III - Correlative study between the different factors.

I - CLINICAL RESULTS

(1) Age, this is shown in table (1)

Table (1) : The range, number and percentage of
Age groups

Range (years)	Number	Percentage
16 - 20	37	59.7
21 - 25	11	17.8
26 - 30	5	8
31 - 35	7	11.3
36 - 40	2	3.2

- (2) Systolic blood pressure (mm/Hg). This is shown in table (2).

Table (2) : The Range and Mean (+ S.D) Systolic B.P. (mm/Hg).

Systolic B.P mm/Hg	Group I n = 30	Group II n = 17	Group III n = 15
Range	90 - 135	140 - 160	165 - 180
Mean $\pm$ S.D	115 $\pm$ 9.9	149 $\pm$ 12	169 $\pm$ 6.8

P value

GI : GII	N.S
GII : GIII	< 0.05
GI : GIII	N.S

- (3) Diastolic blood pressure This is shown in table (3).

Table (3) : The Range and Mean (+ S.D) Diastolic B.P. (mm/Hg).

Diastolic B.P mm/Hg	Group I n = 30	Group II n = 17	Group III n = 15
Range	60 - 85	90 - 100	100 - 120
Mean $\pm$ S.D	75 $\pm$ 7	94 $\pm$ 8.8	107 $\pm$ 6.7

P value

GI : GII	< 0.001
GII : GIII	< 0.001
GI : GIII	< 0.001

(4) Gestational age at delivery This is shown in table (4).

Table (4) : The Range and Mean (+ S.D) Gestational age (weeks).

Gestational age (weeks)	Group I n = 30	Group II n = 17	Group III n = 15
Range	38 - 42	37 - 41	38 - 41
Mean $\pm$ S.D	39.5 $\pm$ 0.8	39 $\pm$ 1.2	37 $\pm$ 1.8

P value

GI : GII N.S
 GII : GIII < 0.01
 GI : GIII < 0.001

There was no statistically significant difference in the mean gestational age at delivery between GI & GII. However mean gestational age at delivery was significantly less in GIII compared to GII and GI.

(5) Foetal birth weight This is shown in table (5).

Table (5) : The Range and Mean (+ S.D) Fetal Birth weight (kgm).

Birth weight (kgm)	Group I n = 30	Group II n = 17	Group III n = 15
Range	2.8 - 3.7	2.2 - 3.1	2.1 - 5.1
Mean $\pm$ S.D	3.2 $\pm$ 0.27	2.61 $\pm$ 0.3	3.12 $\pm$ 0.68

P value

GI : GII < 0.001
 GII : GIII < 0.05
 GI : GIII N.S

These mean fetal birth weight was significantly less in GII compared to GI and GIII but there was no difference between GI and GIII.

(6) 1 minute Apgar score This is shown in table (6)

Table (6) : Tha Range and Mean (+ S.D) one minute Apgar Score.

Apgar Score (1 minute)	Group I n = 30	Group II n = 17	Group III n = 15
Range	4 - 10	3 - 7	1 - 7
Mean $\pm$ S.D	6.9 $\pm$ 1.3	5.3 $\pm$ 1.8	3.9 $\pm$ 1.2

P value

GI : GII < 0.01
GII : GIII < 0.05
GI : GIII < 0.001

The mean Apgar score at one minute was significantly less in GIII compared to GII and GI, and in GII compared to GI i.e. the more the severity of preeclampsia the less was the mean Apgar score at 1 minute.

(7) 5 minutes Apgar score This is shown in table (7)

Table (7) : Tha Range and Mean (+ S.D) Five minutes Apgar Score.

Apgar Score (5 minute)	Group I n = 30	Group II n = 17	Group III n = 15
Range	7 - 10	6 - 10	0 - 10
Mean $\pm$ S.D	9.7 $\pm$ 0.67	8.8 $\pm$ 1.4	6.5 $\pm$ 1.5

P value

GI : GII < 0.01
GII : GIII < 0.001
GI : GIII < 0.001

The Mean Apgar Score at 5 minute was significantly less in GIII compared to GII and GI, and in GII compared to GI i.e The more the severity of preeclampsia the less was the mean Apgar score at 5 minute

II- LABORATORY FINDINGS :

Digoxin-like immunoreactive substance (DLIS)

The differences in the concentrations of DLIS between the 3 groups was determined after excluding patients with concentration below the assay sensitivity to ensure that the assigned zero value were not unduly influential.

Table (8) shows the laboratory results of the maternal DLIS presented as number, (percentage), range and mean $\pm$ S.D.

A. Maternal serum DLIS concentration table (8) shows DLIS concentration in maternal serum.

Table (8) : The Range, Mean (+ S.D) and Percentage of Maternal Digoxi Like Immunoreactive Substance (ng/ml).

DLIS ng/ml	Group I n = 30	Group II n = 17	Group III n = 15
No of cases	22	15	10
%	73	88	67
Range	0.5 - 1.35	0.5 - 4.0	0.6 - 3.1
Mean $\pm$ S.D	0.73 $\pm$ 0.36	0.71 $\pm$ 1.54	1.67 $\pm$ 1.1

P value

GI : GII	N.S
GII : GIII	N.S
GI : GIII	< 0.05

The mean level of DLIS was significantly higher in GIII compared to GI, but not in GIII compared to GII and in GII compared to GI.

B. Foetal serum DLIS concentration

Table (9) shows the laboratory results of the foetal serum concentration of DLIS presented as number, percentage, range and mean $\pm$ S.D.

Table (9) : The Range and Mean (+ S.D) of Cord Blood DLIS (ng/ml).

DLIS ng/ml	Group I n = 30	Group II n = 17	Group III n = 15
No of cases	30	17	15
%	100	100	100
Range	0.65 - 2.5	0.5 - 5.5	0.5 - 8.5
Mean $\pm$ S.D	1.7 $\pm$ 0.53	1.96 $\pm$ 1.1	2.7 $\pm$ 2.6

P value

GI : GII N.S

GII : GIII N.S

GI : GIII N.S

Although the foetal concentration DLIS was higher than the maternal concentration but there was no significance difference between the three groups.

There was no statistically significant difference in the mean level of DLIS in cord blood between the three study groups.

Table (10) shows the statistical analysis of the difference in maternal and foetal DLIS concentration.

Table (10) : Statistical Analysis of the Difference in Mean Maternal and Foetal DLIS.

DLIS ng/ml	Group I n = 30	Group II n = 17	Group III n = 15
Maternal	0.73	0.71	1.67
Foetal	1.7	1.96	2.7
P value	< 0.001	< 0.05	> 0.05

There was a significantly higher mean level of DLIS in foetal compared to maternal in GI and GII but not in GIII.

III- CORRELATIVE STUDY BETWEEN THE DIFFERENT FACTORS

This correlation was attempted between the maternal, foetal DLIS and various variables (gestational age, infant birth weight. Apgar score at 1 and 5 minutes, maternal age, systolic and diastolic blood pressure) in the three groups. It was found that there is an inverse correlation between foetal birth weight and maternal DLIS and positive correlation between 5 min. Apgar score and maternal DLIS.

1. Normal control group GI : This is shown in table (11).

Table (11) : Correlation Matrix for Normal Group Cases
Correlated = 30

Parameter	Maternal DLIS	Foetal DLIS
Maternal age	33297	22147
Systolic B.P	15171	02982
Diastolic B.P	09599	11272
Gestational age	- 54069 *	19626
Birth weight	- 58428 *	- 30965 *
1 min Apgar Score	33569	19743
5 min Apgar Score	+ 36715 *	23864

Critical value + or - 36034

1

1

Foetal Birth $\propto$ ----- $\propto$ -----

Mat. DLIS

Ft. DLIS

5'Apgar score $\propto$ Maternal DLIS

1

Gestational age $\propto$ -----

Maternal DLIS

2. Mild preeclamptic group GII : This is shown in table
(12).

Table (12) : Correlation Matrix for Mild Preeclamptic Group (Cases Correlated 17).

Parameter	Maternal DLIS	Foetal DLIS
Maternal age	- 24698	13856
Systolic B.P	- 08742	24006
Diastolic B.P	- 00817	06135
Gestational age	15719	42283
Birth weight	17768	00578
1 min Apgar Score	02541	07087
5 min Apgar Score	25773	09694

critical value + / - 48073

P = N.S correlation is found

3. Severe preeclamptic group GIII : This is shown in table (13).

Table (13) : Correlation Matrix for Severe Preeclamptic Group (Cases Correlated 15).

Parameter	Maternal DLIS	Foetal DLIS
Maternal age	08197	43488
Systolic B.P	07842	33006
Diastolic B.P	18289	05890
Gestational age	45052	32722
Birth weight	01532	- 54664 *
1 min Apgar Score	11460	- 66984 *
5 min Apgar Score	45090	46092

Critical Value +/- 53067

$$P \propto \frac{1}{\text{Birth weight}} \propto \text{Fetal DLIS}$$

$$\propto \frac{1}{\text{Apgar Score 1 min}} \propto \text{Fetal DLIS}$$

4. Correlation between the maternal and foetal DLIS in the three groups this is shown in table (14).

Table (14) : Correlation Between Maternal and Foetal DLIS in The Three Groups.

Correlation between	Group I n = 30	Group II n = 17	Group III n = 15
Foetal o maternal DLIS	+ 53247 *	+ 64500 *	14823
Critical value	+/- 36034	+/- 48073	+/- 53067
P value	Significant	Significant	N.S
	+ correlation	+ correlation	