RESULTS

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The results are shown in tables I to XI.

Our findings showed that mean IgG levels, in both maternal and fetal samples, decreased significantly in women with preeclampsia and eclaampsia, compared to normal pregnant women (P < 0.001). Mean maternal and fetal IgG levels decreased further in the group with eclampsia compared to the preeclampsia group. (P < 0.001 , tables VIII and IX).

Mean maternal serum IgM level decreased in preeclampsia and eclampsia group, compared to normal pregnancy group, but the decrease was not statistically significant (P > 0.05 , table VIII). Mean fetal serum IgM level decreased in preeclampsia group compared to normal pregnancy group, but the decrease was not statistically significant (P > 0.05 , table IX). Also, the mean fetal serum IgM decreased in eclampsia group compared to normal pregnancy group and this decrease was statistically significant (P = 0.05 , table IX). There was also a decrease in the mean fetal serum IgM level in eclampsia group compared to preeclampsia

group and this decrease was also statistically significant ($P = 0.05$, table IX).

The mean maternal serum IgA level was found to be lower in the preeclampsia and eclampsia group compared to normal pregnancy group, but the difference was not statistically significant ($P > 0.05$, table VIII). Also, there was no statistically significant differance between the mean maternal IgA serum level in the eclampsia group compared to preeclampsia group ($P > 0.05$, table VIII).

Regarding mean maternal serum IgD level, it was found that there was a statistically significant reduction in both preeclampsia and eclampsia group, compared to normal pregnancy group ($P < 0.001$, table VIII). There was however, no statistically significant difference in the mean maternal IgD serum level in eclampsia, compared to preeclampsia group ($P > 0.05$, table VIII).

Concering mean maternal serum IgE level, it was noted that there was no statistically significant difference between the preeclampsia group compared to normal control group ($P > 0.05$, table VIII). However, the mean

maternal serum IgE level in eclampsia was significantly higher compared to normal pregnancy group (P = 0.05 , table VIII). Also the mean maternal IgE serum level was significantly higher in eclamptic group compared to preeclampsia group (P = 0.05 , table VIII).

Table (I) : Maternal serum IgG level in normal and toxemic pregnancies(mg/100 ml).

Normal Pregnancy		Preeclampsia		Eclampsia	
Case	IgG	Case	IgG	Case	IgG
1	2650	1	1630	1	463
2	2650	2	1560	2	700
3	2260	3	1310	3	1250
4	1760	4	1560	4	1070
5	1760	5	1690	5	963
6	1900	6	1690	6	1250
7	1560	7	1560	7	1020
8	1560	8	1690	8	700
9	1630	9	1370	9	1070
10	1630	10	1500	10	1370
11	2260				
12	1830				
13	2040				
14	2490				
15	2190				
16	1900				
17	2260				
18	2260				
19	1900				
20	1560				
Range	1560 - 2650		1310 - 1690		463 - 1370
Mean	1983		1556		995.8
S.D.±	329.4		159.3		277.1

Table (II) : Fetal serum IgG level in normal and toxemic pregnancies (mg/100 ml).

Normal Pregnancy		Preeeclampsia		Eclampsia	
Case	IgG	Case	IgG	Case	IgG
1'	2260	1'	1560	1'	463
2'	2260	2'	1500	2'	602
3'	2190	3'	1500	3'	908
4'	1970	4'	1130	4'	963
5'	1970	5'	1630	5'	908
6'	1900	6'	1370	6'	1250
7'	1560	7'	1250	7'	1070
8'	1190	8'	1500	8'	751
9'	1560	9'	1130	9'	963
10'	1760	10'	963	10'	1310
11'	1900				
12'	1560				
13'	2260				
14'	2260				
15'	2190				
16'	1560				
17'	2190				
18'	2190				
19'	1900				
20'	1560				
Range	1560-2260		963-1630		463-1310
Mean	1845		1353.3		918.8
S.D. ±	293		356.1		263.7

Table (III) : *Maternal serum IgM level in normal and toxemic pregnancies (mg/100 ml).*

Normal Pregnancy		Preeclampsia		Eclampsia	
Case	IgM	Case	IgM	Case	IgM
1	290	1	160	1	160
2	200	2	168	2	243
3	217	3	280	3	160
4	252	4	160	4	123
5	507	5	176	5	160
6	152	6	261	6	200
7	152	7	192	7	252
8	309	8	152	8	226
9	329	9	123	9	309
10	507	10	381	10	319
11	160				
12	243				
13	243				
14	402				
15	243				
16	243				
17	145				
18	243				
19	243				
20	280				
Range	145-507		123 - 381		123 - 319
Mean	268		205.3		215.2
S.D. ±	103.4		78.7		66.4

Table (IV) : Fetal serum IgM level in normal and toxemic pregnancies (mg/100 ml).

Normal Pregnancy		Preeclampsia		Eclampsia	
Case	IgM	Case	IgM	Case	IgM
1'	8.0	1'	17.6	1'	8.0
2'	12.8	2'	12.8	2'	12.8
3'	17.6	3'	12.8	3'	3.2
4'	17.6	4'	12.8	4'	12.8
5'	17.6	5'	12.8	5'	3.2
6'	8.0	6'	3.2	6'	3.2
7'	8.0	7'	3.2	7'	3.2
8'	17.6	8'	12.8	8'	8.0
9'	17.6	9'	3.2	9'	3.2
10'	17.6	10'	8.0	10'	17.6
11'	12.8				
12'	8.0				
13'	17.6				
14'	8.0				
15'	17.6				
16'	17.6				
17'	8.0				
18'	17.6				
19'	17.6				
20'	17.6				
Range	8.0-17.6		3.2 - 17.6		3.2 - 17.6
Mean	16.1		12.8		7.5
S.D. ±	8.1		9.4		5.3

Table (V) : *Maternal serum IgA in normal and toxemic pregnancies (mg/100 ml).*

Normal Pregnancy		Preeclampsia		Eclampsia	
Case	IgA	Case	IgA	Case	IgA
1	268	1	93.2	1	93.2
2	285	2	118	2	196
3	153	3	263	3	109
4	296	4	109	4	263
5	253	5	296	5	231
6	368	6	135	6	210
7	319	7	153	7	296
8	162	8	181	8	181
9	153	9	252	9	210
10	274	10	263	10	171
11	153				
12	171				
13	153				
14	263				
15	210				
16	190				
17	200				
18	368				
19	190				
20	181				
Range	153 - 368		93.2-296		93.2 - 296
Mean	227.1		194.7		196
S.D. ±	76.8		91.9		64.4

Table (VI) : *Maternal serum IgD level in normal and toxemic pregnancies (I.U./ ml).*

Normal Pregnancy		Preeclampsia		Eclampsia	
Case	IgD	Case	IgD	Case	IgD
1	32.5	1	8	1	5.0
2	19.0	2	7	2	-
3	14.0	3	6	3	0.5
4	18.0	4	-	4	0.5
5	-	5	5	5	3.0
6	23.5	6	2	6	-
7	34.0	7	-	7	8.0
8	22.0	8	3	8	7.0
9	23.5	9	12	9	6.0
10	44.0	10	14	10	13.0
11	12.0				
12	14.0				
13	-				
14	14.0				
15	22.0				
16	28.0				
17	-				
18	32.0				
19	47.0				
20	43.0				
Range	-to47		-to 14		-to 13
Mean	23.8		7.2		5.4
S.D. ±	13.2		4.4		5.3

Table (VII) : *Maternal serum IgE level in normal and toxemic pregnancies (mg/100 ml).*

Normal Pregnancy		Preeclampsia		Eclampsia	
Case	IgE	Case	IgE	Case	IgE
1	0.028	1	0.030	1	0.039
2	0.043	2	0.039	2	0.059
3	0.042	3	0.029	3	0.042
4	0.030	4	-	4	0.066
5	0.027	5	0.045	5	0.053
6	-	6	0.030	6	-
7	0.039	7	-	7	0.059
8	-	8	0.041	8	0.039
9	0.042	9	0.041	9	-
10	0.039	10		10	0.069
11	0.029				
12	0.049				
13	-				
14	0.048				
15	0.036				
16	0.035				
17	0.042				
18	0.034				
19	0.030				
20	0.035				
Range	-to0.049		-to 0.045		-to0.069
Meam	0.036		0.037		0.053
S.D. ±	0.006		0.007		0.013

Table (VIII) : *Mean maternal serum IgG, IgM, IgA, IgD and IgE levels in normal and toxemic pregnancies.*

Group	IgG	IgM	IgA	IgD	IgE
Normal Pregnancy	1983 mg/100ml ± 329.4	268 mg/100ml ± 103.4	227.1 mg/100 ml ± 76.8	23.8 I.U. / ml ± 13.2	0.036 mg/100 ml ± 0.006
Preeclampsia	1556 mg/100ml ± 159.3	205.3 mg/100 ml ± 78.7	194.7 mg/100 ml ± 91.9	7.2 I.U. / ml ± 4.4	0.037 mg/100ml ± 0.007
Eclampsia	995.8 mg ± 277.1	215.2 mg/100 ml ± 66.4	196 mg/100ml ± 64.4	5.4 I.U./ml ± 5.3	0.053 mg/100 ml ± 0.013
P Value : Normal: Preeclampsia	P<0.001	P>0.05	P>0.05	P<0.001	P>0.05
Normal: Eclampsia	P<0.001	P>0.05	P>0.05	P<0.001	P=0.05
Preeclampsia:Eclampsia	P<0.001	P>0.05	P>0.05	P>0.05	P=0.05

Table (IX) : Mean fetal serum IgG and IgM levels in normal and toxemic pregnancies

Group	IgG	IgM
Normal Pregnancy	1845 mg/100ml±293	16.1 mg/100ml±8.1
Preeclampsia	1353 mg/100ml±356.1	12.8 mg/100ml ±9.4
Eclampsia	918.8mg/100ml±263.7	7.5 mg/100ml ±5.3
P Value:		
Normal: Preeclampsia	P = 0.01	P > 0.05
Normal: Eclampsia	P < 0.001	P = 0.05
Preeclampsia: Eclampsia	P < 0.001	P = 0.05

Table (X) : Mean maternal and fetal serum IgG level in normal and toxemic pregnancy.

Group	Maternal	Fetal
Normal Pregnancy	1983 mg/100ml±329.4	1845 mg/100ml±293
Preeclampsia	1556 mg/100ml±159.3	1353 mg/100ml±356.1
Eclampsia	995.8 mg/100ml±277.1	918.8mg/100ml±263.7

Table (XI) : Mean maternal and fetal serum IgM level in normal and toxemic pregnancy

Group	Maternal	Fetal
Normal Pregnancy	268 mg/100ml±103.4	16.1 mg/100ml±8.1
Preeclampsia	205.3 mg/100ml±78.7	12.8 mg/100ml±9.4
eclampsia	215.2 mg/100ml±66.4	7.5 mg/100ml ±5.3