2. RESULTS

I. IMMUNOGLOBULINS IN BREAST-FED AND ARTIFICIALLY-FED INFANTS :

The important data for IgM , IgG , IgA and IgS in both breast-fed and artificially-fed infants are summarised in tables (I) & (II) and figures (I) , (II) , (III) , (IV) , (V) & (VI) .

Table (I) summarises the range , mean , standard deviation and standard error of the mean for IgM , IgG , IgA and IgS in both breast-fed and artificially-fed infants. Also, (t)-tests for all immunoglobulins are demonstrated in table (I) .

Table (II) summarises the mean , standard deviation and standard error of the mean for IgM , IgG , IgA and IgS in different age groups of both breast-fed and artificially-fed infants . Also, (t)-tests for all immunoglobulins are demonstrated in table (II) .

IMMUNOGLOBULIN M :

As in table (I) , IgM ~~serum~~ level varied from 0.96 - 3.29 g/l with a mean value of 2.41 , S.D of ± 0.82 & S.E.M. of ± 0.15 g/l in breast-fed infants , while it ranged from 0.54 - 2.9 g/l with a mean value of 1.69 , S.D. of ± 0.75 & S.E.M. of ± 0.14 g/l in artificially-fed infants .

IgM of breast-fed infants showed highly significant increase when compared with IgM of artificially-fed infants. ($P < 0.001$). (as shown in table (I)).

As in table (II) , IgM serum level showed very slight variation in the two age groups of breast-fed and artificially-fed infants .

Also IgM serum level showed very slight variation in both males and females of breast-fed and artificially-fed infants .(as shown in the reference tables).

Figure (I) showed that the diameters of most preciptin rings of IgM plate for breast-fed infants, were larger than most of the diameters of preciptin rings of IgM plate for artificially-fed infants in figure (II) .

IMMUNOGLOBULIN G :

As in table (I) , IgG serum level ranged from 9.63 - 22.6 g/l with a mean value of 17.83 , S.D. of $\pm$ 4.94 & S.E.M. of $\pm$ 0.9 g/l in breast-fed infants . On the other hand , IgG serum level of artificially-fed infants varied from 7.51 - 18.3 g/l with a mean value of 17.83 , S.D. of + 3.32 & S.E.M. of + 0.61 g/l .

IgG of breast-fed infants showed highly significant increase when compared with IgG of artificially-fed infants. ($P < 0.001$). (as shown in table (I)).

As in table (II) , IgG serum level showed a variation in the two age groups of breast-fed infants . The mean value was found to be 15.46 g/l in 1st group (6-9 months) while the 2nd group (>9-12 months) showed a mean value of 19.41 g/l in breast-fed infant . This variation was not significant as P 0.01 . On the other hand , IgG serum level of artificially-fed infants showed very slight variation in the two age groups .

IgG serum level showed very slight variation in both males and females of breast-fed and artificially-fed infants. (as shown in the reference tables).

Figure (III) showed that the diameters of most precipitin rings of IgG plate for breast-fed infants , were larger than most of the diameters of precipitin rings of IgG plate for artificially-fed infants in figure (IV) .

IMMUNOGLOBULIN A :

As in table (I) , IgA serum level showed variation from 0.7 - 2.1 g/l with a mean value of 1.31 , S.D. of ± 0.48 , S.E.M. of ± 0.09 g/l in breast-fed infants , while it ranged from 0.42 - 1.53 g/l with a mean value of 0.94 , S.D. of ± 0.35 & S.E.M. of ± 0.06 g/l in artificially-fed infants .

Serum level of IgA of breast-fed infants showed highly significant increase when compared with IgA of artificially-fed infants .(P <0.001). (as shown in table (I)) .

As in table (II) , IgA serum level showed a variation in the two age groups of breast-fed infants , the mean value was found to be 1.13 g/l in 1st group (6-9 months) while the 2nd group (>9-12 months) showed a mean value of 1.43 g/l . This variation was not significant as $P < 0.01$. On the other hand , IgA serum level of artificially-fed infants showed very slight variation in the two age groups .

IgA serum level showed very slight variation in both males and females of breast-fed and artificially-fed infants. (as shown in the reference tables).

Figure (V) showed that the diameters of most preciptin rings of IgA plate for breast-fed infants were larger than most of the diameters of preciptin rings of IgA plate for artificially-fed infants in figure (VI) .

TOTAL IMMUNOGLOBULINS (IgS) :

As in table (I) , IgS serum level showed a fluctuation from 11.29 - 27.6 g/l with a mean value of 21.53 , S.D. of $\pm$ 5.38 & S.E.M. of $\pm$ 0.98 g/l in breast-fed infants . On the other hand , IgS serum level of artificially-fed infants showed variation from 9.03 - 22.73 g/l with a mean value of 14.21 , S.D. of $\pm$ 4.16 & S.E.M. of $\pm$ 0.76 g/l .

IgS of breast-fed infants showed highly significant increase when compared with IgS of artificially-fed infants. ($P < 0.001$). (as shown in table (I)).

As in table (II) , IgS serum level showed a variation in the two age groups of breast-fed infants , whereas the mean value of IgS was found to be 19.04 g/l in 1st group (6-9 months) and the 2nd group (>9-12 months) showed a mean value of 23.18 g/l . This variation was not significant as P> 0.01 . As regards IgS serum level of artificially-fed infants , it showed very slight variation in the two age groups .

Table (I) : Comparison of IgM , IgG , IgA and IgS serum levels in breast-fed (BF) & in artificially-fed (AF) infants .

Immunoglobulin (g/l)	Breast-fed infants (BF)		Artificially-fed infants (AF)		(t)-Test
IgM	Range	0.96-3.29	Range	0.54-2.9	3.57***
	Mean	2.41	Mean	1.69	
	S.D.	±0.82	S.D.	±0.75	
	S.E.M.	±0.15	S.E.M.	±0.14	
IgG	Range	9.63-22.6	Range	7.51-18.3	5.75***
	Mean	17.83	Mean	11.58	
	S.D.	±4.94	S.D.	±3.32	
	S.E.M.	±0.9	S.E.M.	±0.61	
IgA	Range	0.7 - 2.1	Range	0.42-1.53	3.4***
	Mean	1.31	Mean	0.94	
	S.D.	±0.48	S.D.	±0.35	
	S.E.M.	±0.09	S.E.M.	±0.06	
IgS	Range	11.29-27.6	Range	9.03-22.73	5.89***
	Mean	21.53	Mean	14.21	
	S.D.	±5.38	S.D.	±4.16	
	S.E.M.	±0.98	S.E.M.	±0.76	

*** = Highly significant $P < 0.001$

Table (II) : Mean values for serum IgM , IgG , IgA and IgS in different age groups in breast-fed (BF) and in artificially-fed (AF) infants .

Age groups (months)		IgM(g/l)		IgG(g/l)		IgA(g/l)		IgS(g/l)	
		BF	AF	BF	AF	BF	AF	BF	AF
6-9	Mean	2.46	1.65	15.46	11.45	1.13	0.95	19.04	14.06
	S.D.	±0.82	±0.86	±3.30	±4.88	±0.35	±0.5	±5.51	± 4.19
	S.E.M.	±0.25	±0.2	±1.4	±0.8	±0.14	±0.08	±1.59	± 1.02
>9-12	Mean	2.37	1.73	19.41	11.74	1.43	0.93	23.18	14.4
	S.D.	±0.81	±0.68	±4.42	±3.48	±0.45	± 0.37	±4.75	± 4.3
	S.E.M.	±0.19	±0.188	±1.04	±0.96	±0.11	±0.1	±1.12	± 1.19
(t)-Test		0.29*	0.28*	2.25*	0.47*	1.73*	0.15*	2.13*	0.22*

* = Non significant P > 0.01

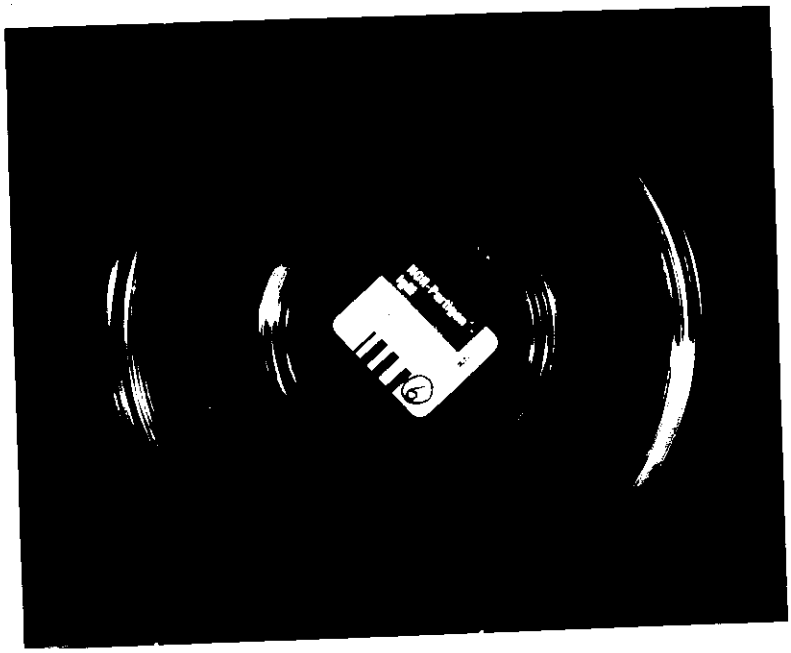

Figure (I): NOR-Partigen IgM plate for Breast-fed infants .

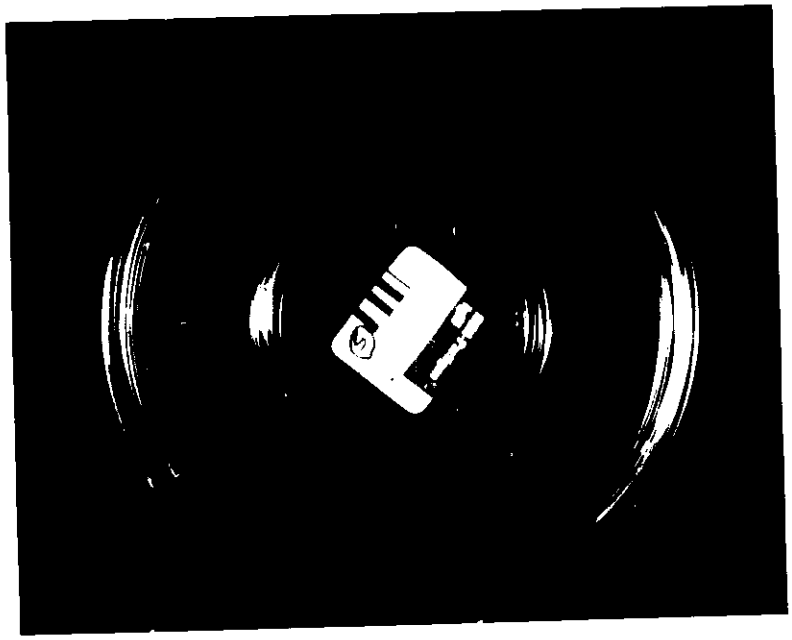

Figure (II): NOR-Partigen IgM plate for Artificially-fed infants .

Figure (III): NOR-Partigen IgG plate for Breast-fed infants .

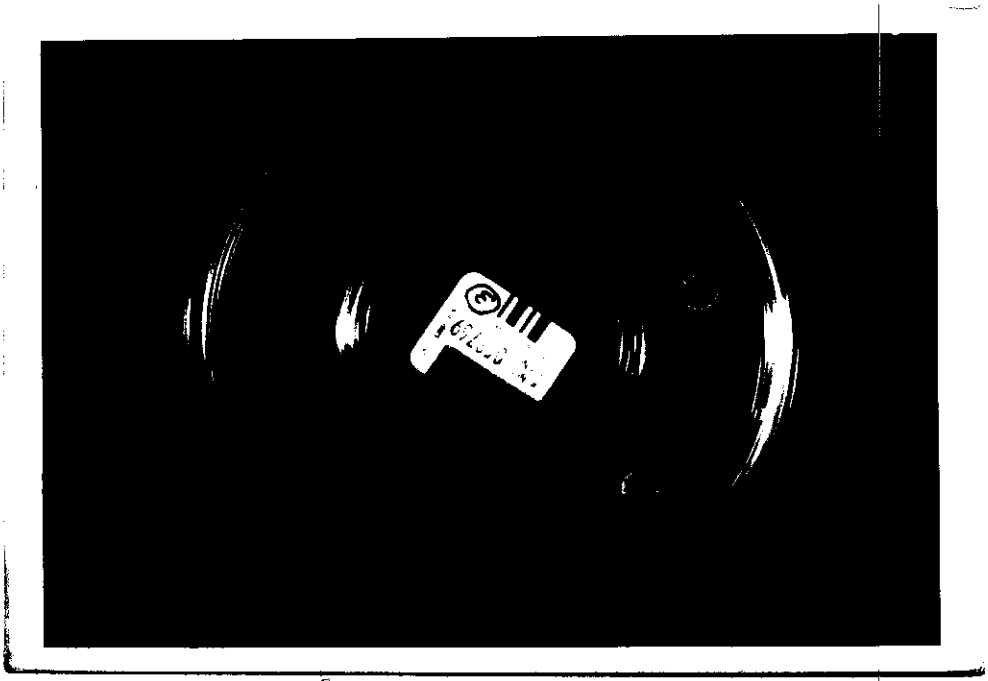

Figure (IV): NOR-Partigen IgG plate for Artificially-fed infants .

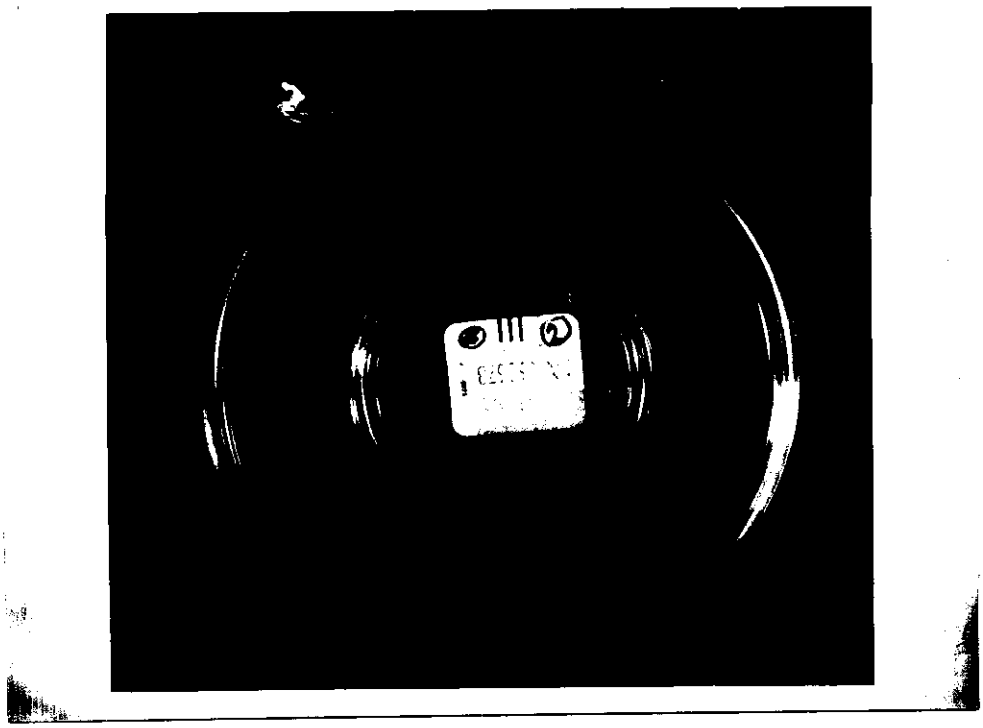

Figure (V): MOR-Partigen IgA plate for Breast-fed infants .

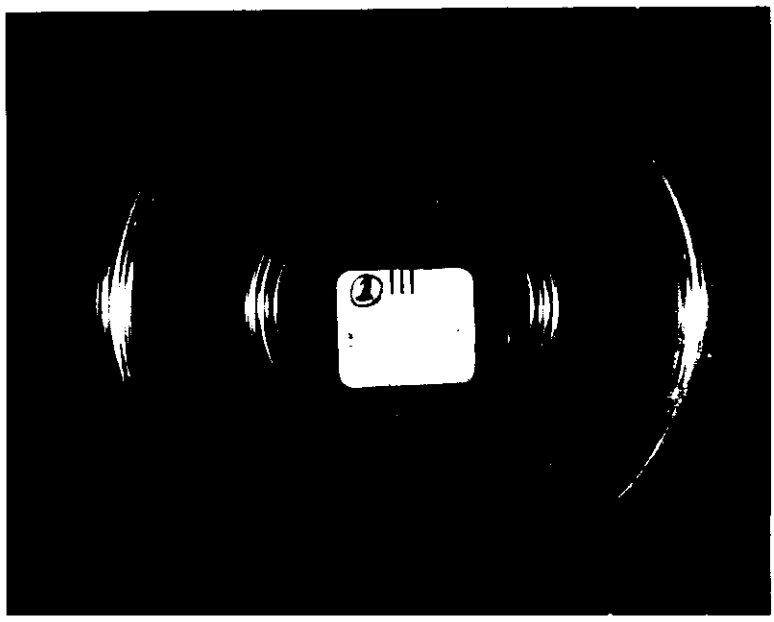

Figure (VI): MOR-Partigen IgA plate for Artificially-fed infants .

II. SERUM LIPIDS , β-LIPOPROTEIN & APOLIPOPROTEIN B IN BREAST-FED AND ARTIFICIALLY FED-INFANTS :

The important data for serum total lipids , β-lipoprotein and apolipoprotein B in both breast-fed and artificially-fed infants are illustrated in tables (III) & (IV) and figures (VII) & (VIII) .

Table (III) summarises the range , mean , standard deviation and standard error of the mean for total lipids, β-lipoprotein and apolipoprotein B in both breast-fed and artificially-fed infants . Also , (t)-tests for all lipid fractions are demonstrated in table (III) .

Table (IV) summarises the mean , standard deviation and standard error of mean for total lipids , β-lipoprotein and apolipoprotein B in different age groups of both breast-fed and artificially-fed infants . Also , (t)-tests for all lipids fractions are demonstrated in table (IV) .

TOTAL LIPIDS :

As in table (III) , serum level of total lipids showed variation from 4.6 - 10 g/l with a mean value of 7.06 , S.D. of ± 1.66 & S.E.M. of ± 0.3 g/l in breast-fed infants. On the other hand , total lipids of artificially-fed infants ranged from 3.8 - 9.6 g/l with a mean value of 6.25 , S.D. of ± 1.42 & S.E.M. of ± 0.26 g/l .

The obtained results of total lipids of breast-fed infants were higher than that of artificially-fed infants, but the increase was not significant ($P > 0.01$). (as shown in table (III)).

The tabulated results of total lipids in table (IV) showed slight variation in the two age groups of breast-fed and artificially-fed infants . This variation was not significant as $P > 0.01$.

Also , serum total lipids showed slight variation in both males and females of breast-fed and artificially-fed infants . This variation was not significant as $P > 0.01$. (as shown in the reference tables).

β-LIPOPROTEIN :

The obtained results (table (III)) of serum level of β-lipoprotein showed a fluctuation from 3.67 - 8.28 g/l with a mean value of 5.41 , S.D. of ± 1.26 & S.E.M. of ± 0.23 g/l in breast-fed infants . On the other hand , the serum level of β-lipoprotein of artificially-fed infants ranged from 2.33 - 7.35 g/l with a mean value of 4.75 , S.D. of ± 1.22 & S.E.M. of ± 0.22 g/l .

β-lipoprotein of breast-fed infants was higher than that of artificially-fed infants , but this increase was found to be not significant as $P > 0.01$.(as shown in table (IV)).

Serum β-lipoprotein level (in table (IV)) showed slight variation in the two age groups of breast-fed infants , but this variation was not significant as $P > 0.01$. While in artificially-fed infants , β-lipoprotein showed very slight variation in the two age groups.

Also , serum β-lipoprotein showed slight variation in both males and females of breast-fed and artificially-fed infants . This variation was not significant ($P > 0.01$). (as shown in the reference tables).

APOLIPOPROTEIN B :

The serum level of apolipoprotein B (in table (III)) ranged from 0.5 - 1.2 g/l with a mean value of 0.79 , S.D. of $\pm$ 0.18 & S.E.M. of $\pm$ 0.033 g/l in breast-fed infants . On the other hand , apolipoprotein B of artificially-fed infants varied from 0.33 - 1.07 g/l with a mean value of 0.69 , S.D. of $\pm$ 0.17 & S.E.M. of $\pm$ 0.032 g/l .

The obtained results of apolipoprotein B of breast-fed infants were higher than than of artificially-fed infants , but this increase was not significant as $P > 0.01$. (as shown in table (III)) .

The tabulated results of apolipoprotein B in table (IV) showed slight variation in the two age groups of breast-fed infants , this variation was not significant as $P > 0.01$.

Serum level of apolipoprotein B showed very slight variation in both males and females of breast-fed and artificially-fed infants .(as shown in the reference tables) .

Figure (VII) showed that the diameters of most preciptin rings of apolipoprotein B plate for breast-fed infants were larger than most of the diameters of preciptin rings of apolipoprotein B for artificially-fed infants in figure (VIII) .

Table (III) : Comparison of total lipids , β-lipoprotein and Apolipoprotein B serum levels in breast-fed (BF) & in artificially-fed (AF) infants .

Lipids & their fractions (g/l)	Breast-fed infants (BF)		Artificially-fed infants (AF)		(t)-Test
Total lipids	Range	4.6 -10	Range	3.8 -9.6	2.02 *
	Mean	7.06	Mean	6.25	
	S.D.	±1.66	S.D.	±1.42	
	S.E.M.	±0.30	S.E.M.	±0.26	
β-lipoprotein	Range	3.67-8.28	Range	2.33-7.35	2.06 *
	Mean	5.41	Mean	4.75	
	S.D.	±1.26	S.D.	±1.22	
	S.E.M.	±0.23	S.E.M.	±0.22	
Apolipoprotein B	Range	0.5 -1.2	Range	0.33-1.07	2.16 *
	Mean	0.79	Mean	0.69	
	S.D.	±0.18	S.D.	±0.17	
	S.E.M.	±0.033	S.E.M.	±0.032	

* = Non significant P > 0.01

Table (IV) : Mean values for serum total lipids , β-lipoprotein and Apolipoprotein B in different age groups in breast-fed (BF) and in artificially-fed (AF) infants .

Age group (months)		Total lipids (g/l)		B-lipoprotein (g/l)		Apolipoprotein B (g/l)	
		BF	AF	BF	AF	BF	AF
6-9	Mean	7.45	6.39	5.69	4.75	0.83	0.69
	S.D,	±1.92	±1.66	±1.35	±1.23	±0.2	±0.18
	S.E.M.	±0.55	±0.4	±0.39	±0.3	±0.06	±0.04
>9-12	Mean	6.8	6.08	5.22	4.74	0.77	0.7
	S.D.	±1.46	±1.05	±1.2	±1.26	±0.17	±0.17
	S.E.M.	±0.34	±0.29	±0.28	±0.35	±0.04	±0.05
(t)-Test		1.0*	0.62*	0.99*	0.002*	0.85*	0.19*

* = Non significant $P > 0.01$

Figure (VII): M-Partigen Apolipoprotein B for Breast-fed infants .

Figure (VIII): M-Partigen Apolipoprotein B for Artificially-fed infants .

III. CORRELATION BETWEEN LIPIDS & LIPOPROTEINS AND IMMUNOGLOBULINS IN BREAST-FED AND ARTIFICIALLY-FED INFANTS :

The important data for the correlation between total lipids , β-lipoprotein , apolipoprotein B and immunoglobulins, IgM , IgG & IgA in both breast-fed and artificially-fed male and female infants are summarised in tables (V) , (VI) & (VII) .

Table (V) illustrates the correlation between total lipids and immunoglobulins , IgM , IgG & IgA in both breast-fed and artificially-fed male and female infants .

The tabulated results (in table (V)) showed a significant correlation between serum total lipids and IgM in males of both breast-fed and artificially-fed infants . Also , there was significant correlation between the total serum lipids and IgG & IgA in males of artificially-fed infants only .

Table (VI) showed the correlation between serum β-lipoprotein and immunoglobulins , IgM , IgG & IgA in both breast-fed and artificially-fed male and female infants .

The obtained results (table(VI)) showed a significant correlation between β-lipoprotein and IgM in both males and females of breast-fed infants & males of artificially-fed infants . On the other hand , there was

significant correlation between β-lipoprotein and IgG & IgA in males of artificially-fed infants only .

Table (VII) showed the correlation between serum apolipoprotein B and immunoglobulins , IgM , IgG & IgA in both breast-fed and artificially-fed male and female infants .

The tabulated results (in table (VII)) showed a significant correlation between serum apolipoprotein B and IgM in females of breast-fed infants & males of artificially-fed infants . Also , There was significant correlation between apolipoprotein B and IgG & IgA in males of artificially-fed infants only .

Table (V) : Correlation between the blood serum total lipids and immunoglobulins M , G and A levels in breast-fed as compared with artificially-fed male and female infants .

Immunoglobulin		Breast-fed infants		Artificially-fed infants	
		Males	Females	Males	Females
IgM	Mean g/l	2.44	2.37	1.57	1.84
	r	+0.51	+0.48	+0.74	+0.08
	(t)-Test	2.28**	2.13*	4.5**	0.27*
IgG	Mean g/l	17.6	18.13	11.29	11.96
	r	+0.02	+0.46	+0.66	-0.34
	(t)-Test	0.08*	1.84*	3.58**	1.32*
IgA	Mean g/l	1.34	1.28	0.95	0.93
	r	-0.42	-0.04	+0.61	-0.05
	(t)-Test	1.92*	0.14*	3.19**	0.18*

r = Correlation coefficient .

* = Nom significant P > 0.05

**= Significant P < 0.05

Table (VI) : Correlation between the blood serum β-lipoprotein and immunoglobulins M , G and A levels in breast-fed as compared with artificially-fed male and female infants .

Immunoglobulin		Breast-fed infants		Artificially-fed infants	
		Males	Females	Males	Females
IgM	Mean g/l	2.44	2.37	1.57	1.84
	r	+0.50	+0.53	+0.82	-0.06
	(t)-Test	2.40**	2.25**	5.83**	0.21*
IgG	Mean g/l	17.6	18.13	11.29	11.96
	r	+0.05	+0.35	+0.71	-0.43
	(t)-Test	0.20*	1.37*	4.14**	1.70*
IgA	Mean g/l	1.34	1.28	0.95	0.93
	r	-0.17	-0.06	+0.70	-0.12
	(t)-Test	0.72*	0.22*	4.06**	0.42*

r = Correlation coefficient .

* = Non significant $P > 0.05$

** = Significant $P < 0.05$

Table (VII) : Correlation between the blood serum Apolipoprotein B and immunoglobulins M , G and A levels in breast-fed as compared with artificially-fed male and female infants .

Immunoglobulin		Breast-fed infants		Artificially-fed infants	
		Males	Females	Males	Females
IgM	Mean g/l	2.44	2.37	1.57	1.84
	r	+0.36	+0.53	+0.78	-0.07
	(t)-Test	1.57*	2.24**	5.28**	0.24*
IgG	Mean g/l	17.6	18.13	11.29	11.96
	r	-0.09	+0.36	+0.69	-0.44
	(t)-Test	0.35*	1.37*	3.95**	1.77*
IgA	Mean g/l	1.34	1.28	0.95	0.93
	r	-0.11	-0.06	+0.66	-0.12
	(t)-Test	0.47*	0.21*	3.64**	0.45*

r = Correlation coefficient .

* = Non significant P > 0.05

** = Significant P < 0.05

REFERENCE TABLES

1- Breast-fed males

Serial No	Case No	Age (months)	Weight (kg)	Length (cm)	IgM (g/l)	IgG (g/l)	IgA (g/l)	Total lipids (g/l)	β-lipoprotein (g/l)	Apolipoprotein B (g/l)	β /∝ ratio
1	1	6	7.7	67.5	0.96	9.63	0.7	6.2	4.83	0.7	3.54
2	21	8	8.6	71	2.99	11.3	0.7	8.3	5.95	0.86	2.09
3	28	8	8.6	71.5	2.8	15	1.35	10	5.96	0.86	1.47
4	4	9	9	72	3.29	22.9	0.85	7.8	5.93	0.86	3.17
5	15	9	9.2	72	2.34	12.5	0.78	5.4	4.79	0.7	7.8
6	27	9	9.2	72	2.9	22.6	2.1	7.8	6.12	0.89	3.64
7	9	10	9.3	73	3.19	22.6	0.85	7.2	5.48	0.79	3.18
8	14	10	9	73	1.52	21.9	2.1	5.2	3.88	0.56	2.93
9	16	10	9.5	74	3.19	21.9	0.85	6.4	4.55	0.66	2.47
10	22	10	9	73.5	1.92	19.7	1.62	6.4	4.86	0.7	3
11	30	10	9.5	73	0.96	10.2	1.81	6	4.68	0.86	3.56
12	13	11	9.3	74.5	3.09	18.3	1.81	7	6	0.86	6
13	24	11	9.5	75	1.92	17.6	1.9	7	6.03	0.86	6.2
14	10	12	10	76	3.09	19.7	0.93	5.4	4.5	0.66	5
15	18	12	10.2	76	1.68	21.1	2.1	5.2	3.44	0.5	1.95
16	20	12	10	75.5	2.9	9.63	1.09	7.2	5.4	0.79	3
17	25	12	10.3	76	2.8	22.6	1.18	9.6	7.09	1.02	2.82
				Mean	2.44	17.6	1.34	6.98	5.26	0.77	
				S.D.	±0.79	±5.1	±0.54	±1.46	± 0.93	± 0.13	

2- Breast-fed females

Serial No	Case No	Age (months)	Weight (kg)	Length (cm)	IgM (g/l)	IgG (g/l)	IgA (g/l)	Total lipids (g/l)	β-lipoprotein (g/l)	Apolipoprotein B (g/l)	β /α ratio
1	8	6	7.2	66	3.29	9.63	0.7	5.6	4.1	0.59	2.73
2	2	7	7.3	66.5	3.19	16.9	0.78	9.2	8.28	1.2	9
3	19	8	8	69.5	3.09	22.6	1.01	9.8	6.63	0.96	2.1
4	23	8	8.2	70	2.17	13.7	1.35	5.4	4.66	0.68	6.25
5	11	9	8.4	69	1.03	13.1	1.18	4.6	3.67	0.53	3.93
6	29	9	8.5	70	1.52	15.6	2	8.8	7.4	1.07	5.27
7	6	10	8.5	69	3.29	21.9	1.81	7.8	6.1	0.89	3.6
8	5	11	9	72	0.96	11.3	1.18	5.6	4.03	0.59	2.57
9	7	11	9.2	73	2.71	22.6	1.62	5.2	4.57	0.66	7.28
10	17	11	9.2	72	1.6	22.6	1.13	5.4	4.08	0.59	3.08
11	26	11	9	71.5	2	21.9	1.71	8.2	4.85	0.7	1.44
12	3	12	9.5	74	2.61	21.9	1.35	7.6	6.36	0.93	5.15
13	12	12	9.5	74	3.29	21.9	0.78	10	8	1.16	4
				Mean	2.37	18.13	1.28	7.17	5.6	0.81	
				S.D.	±0.88	±4.9	±0.42	±1.94	±1.62	±0.24	

3- Artificially-fed males

Serial No	Case No	Age (months)	Weight (kg)	Length (cm)	IgM (g/l)	IgG (g/l)	IgA (g/l)	Total lipids (g/l)	β-lipoprotein (g/l)	Apolipoprotein B (g/l)	B /α ratio	Milk Formula
1	20	6	7.5	67.5	0.9	9.63	0.78	6.8	4.53	0.66	2	S_{26}
2	22	6	7.7	67	0.96	7.51	0.56	6	4.64	0.68	3.4	Bebelac 1
3	3	8	8.4	70	2.43	14.3	1.53	8	5.1	0.73	1.76	S_{26}
4	6	8	8.2	70	1.23	8.02	0.63	4.6	3.48	0.5	2.39	Similac
5	16	8	8.3	70.5	2.9	11.9	1.53	8.4	7.35	1.07	7	Bebelac 1
6	17	8	8.5	71	0.71	11.3	1.09	3.8	3.52	0.5	12.5	S.M.A.
7	7	9	9	72	1.3	12.5	0.56	7	5.08	0.73	2.65	S_{26}
8	19	9	9.1	72	2.73	14.3	1.35	9.6	6.61	0.96	2.21	Bebelac 1
9	24	9	8.9	72	0.54	8.55	0.85	5.8	4.66	0.68	4.21	Bebelac 1
10	5	10	9.3	73	1.03	7.51	0.42	3.8	2.33	0.33	1.58	Bebelac 1
11	8	10	9.4	73.5	1.68	13.1	1.18	6.6	4.68	0.68	2.44	Bebelac 1
12	9	10	9.1	73	2.17	13.7	0.93	7	5.4	0.79	3.37	Bebelac 1
13	21	11	9.5	75	1.16	8.02	0.42	5	4.01	0.59	4.05	Similac
14	23	11	9.3	74	0.59	9.63	0.49	5.6	3.29	0.62	2.77	S_{26}
15	29	11	9.5	75.5	2.17	12.5	1.35	5.6	4.82	0.7	6.13	Bebelac 1
16	15	12	10	76	2.71	16.9	1.35	7.2	7.12	1.02	83.33	S.M.A.
17	27	12	9.8	75.5	1.45	12.5	1.18	6.4	4.53	0.66	2.33	S_{26}
				Mean	1.57	11.29	0.95	6.31	4.77	0.7		
				S.D.	±0.8	±2.81	±0.4	±1.56	±1.33	±0.19		

4- Artificially-fed females

Serial No	Case No	Age (months)	Weight (kg)	Length (cm)	IgM (g/l)	IgG (g/l)	IgA (g/l)	Total lipids (g/l)	β-lipoprotein (g/l)	Apolipoprotein B (g/l)	β /α ratio	Milk Formula
1	18	6	7	65	1.09	10.7	0.93	4.8	4.57	0.66	20.18	Similac
2	1	7	7.3	66	1.3	11.9	0.93	4.6	2.75	0.4	1.22	S.M.A.
3	10	7	7.2	65.5	2.8	18.3	0.78	6	4.31	0.62	2.54	Similac
4	12	7	7.2	66	2.9	18.3	1.53	5.4	3.47	0.5	1.8	S_{26}
5	11	8	8	69	1.23	8.55	0.56	5.6	4.85	0.7	6.5	S.M.A.
6	2	9	8.2	70	1.92	11.3	0.7	5.6	3.68	0.53	1.91	Bebelac 1
7	4	9	8.3	69.5	1.16	8.02	0.78	9	6.43	0.93	2.5	S.M.A.
8	28	9	8.4	69	2	9.63	1.09	7.6	5.64	0.82	2.89	S.M.A.
9	25	10	8.7	71	1.09	7.51	0.63	6.8	5.6	0.82	4.65	S.M.A.
10	30	10	8.7	71	1.68	9.63	0.7	5.4	3.87	0.56	2.53	S.M.A.
11	14	11	9	72	2.9	11.3	1.09	7.8	6.41	0.93	4.59	Bebelac 1
12	13	12	9.5	74	2.17	19	1.44	5.8	4.62	0.66	3.92	Similac
13	26	12	9.4	74	1.68	11.3	0.93	6	4.99	0.73	4.93	Similac
				Mean	1.84	11.96	0.93	6.19	4.71	0.68		
				S.D.	±0.68	±3.99	±0.3	± 1.27	± 1.12	± 0.16		