Results

RESULTS

Our study of hundred cases is presented from table (1) to (12) and from figure (1) to figure (9).

In our present study as shown in table (1) and figure (1) there is 56 mals and 44 female. 50 breast fed and 50 artificial fed.

Table (2) and figure (2) show age distribution of the studied groups, 24 infants under 6 months, 46 infants from 6-12 months and 30 infants more than 12 months. In the breast fed group mean age is 7.28 ± 3.2 months in the artificial fed group is 12.3 ± 6.21 months.

Table (3) shows mean, S.D. and range of laboratory investigation among all the studied groups.

Table (4) and figure (3) show mean, S.D and rang of Hb. among the studied groups by applying (t) test there is no significance difference of Hb. concentration in both groups (P > 0.05).

Table (5) and figure (4) show mean, S.D. and range of Hct value among the studied group there is significant difference between breast fed and artificial fed (P < 0.05).

Table (6) figure (5) show mean, S.D and range of blood viscosity among the studied groups there is significant difference between both groups (P < 0.05).

Table (7) figure (6) show mean, S.D and range of Serum iron among the studied groups; there is significant difference between both groups (P < 0.05).

Table (8) shows mean, S.D and range of Total iron binding capacity among the studied groups there is also significant difference between the groups (P < 0.05)

Table (9) and figure (7) show comparison between breast fed and artificial fed infants regarding laboratory investigations. The difference between both groups was more obvious regarding to total iron binding capacity (t 2.64) and haematocrit value (t 2.51).

Table (10) and figure (8) clearly shows a -ve and significant relationship between age and Hb, H ct, blood viscosity and SI, but a +ve and significant relationship with TIBC.

Also, there is a +ve and significant correlation between Hb and Hct, BI. viscosity, and SI. Again there is a +ve and significant correlation between Hct and BI. viscosity and SI.

Also, there is a +ve and significant correlation between bl. viscosity and SI. finally there is a-ve and significant correlation between TIBC. and Hb. Ht blood visostiy and SI.

Table (11) shows the result of (t) test between the different groups regarding the different laboratory investigation. the difference between infants less than 6 months and those of 6-12 months was statistically significant regarding Hb, SI. and TIBC. Hb. and SI. decrease with increase of age but TIBC. increase with increase of age. The difference between infants less than 6 months and those more than12 months was statistically significant i.e all the parameters decrease with increase in age except for TIBC the increase with increase in age . Difference between infants 6-12 months and those more than 12 months was also statistically significant. All the parameter decrease with increase in age except for TIBC, that increase. Figure (9) shows the relation ship between Hb and Hct among the studied group.

Table (12) shows the sex differences regerd the laboratory invertigations which shows no significant between the males and females in the studied grops.

Table 1:   Sex distribution of the studied groups.

	Br.F.		Art.F.		Total	
	No	%	No	%	No	%
Males	29	58.0	27	54.0	56	56.0
Females	21	42.0	23	46.0	44	44.0
Total	50	100	50	100	100	100

$X2 = 0.162 ; P > 0.05$

Table 2:   Age distribution of the studied groups.

	Br.F.		Art.F.		Total	
	No	%	No	%	No	%
< 6	17	34.0	7	14.0	24	24.0
6 -	27	54.0	19	38.0	46	46.0
12 +	6	12.0	24	48.0	30	30.0
Total	50	100	50	100	100	100
x = S.D. ±	7.28 3.20		12.30 6.21		9.79 5.52	

Table 3:   Mean, S.D and range of laboratory investigation among all the studied groups (n = 100).

	x	S.D.±	Range	
			Minimum	Maximum
Hb (g/dl)	11.84	1.19	8.00	14.00
Hct(%)	33.34	4.09	23.00	43.00
Bl.viscosity	44.10	4.59	25.50	54.20
S.I (μg/dl)	85.93	26.10	11.60	150.00
T.IB.C (μg/dI)	338.01	64.75	177.00	456.00

Table 4: Mean, S.D. and range of haemoglobin (gm/dl) among the studied groups.

	x	S.D.±	Range	
			Minimum	Maximum
Breast F.	11.96	1.02	9.00	14.00
Artificial F.	11.72	1.34	8.00	14.00

$t = 0.98 ; P > 0.05$

Table 5: Means, S.D and range of haematocrit (%) among the studied groups.

	x	S.D.±	Range	
			Minimum	Maximum
Breast F.	34.34	4.03	26.00	43.00
Artificial F.	32.34	3.95	23.00	42.00

$t = 2.51 ; P < 0.05$

Table 6: Means, S.D. and range of Bl. vesicosity (%) among the studied groups.

	x	S.D.±	Range	
			Minimum	Maximum
Breast F.	45.03	4.53	32.90	54.00
Artificial F.	43.18	3.52	25.50	54.20

$t = 2.04 ; P < 0.05$

Table 7: Means, S.D, and range of serum iron (μg/dl) among the studied groups.

	x	S.D±	Range	
			Minimum	Maximum
Breast F.	90.83	23.38	11.60	150.00
Artificial F.	81.04	27.95	31.00	145.00

t = 1.90 ; P < 0.05

Table 8: Means, S.D, and range of total iron binding capacity (μg/dl) among the studied groups.

	x	S.D±	Range	
			Minimum	Maximum
Breast F.	354.66	49.68	186.00	456.00
Artificial F.	321.36	73.73	177.00	421.00

t = 2.64 ; P < 0.05

Table 9:   Comparison between br.F.and art.F. infants regarding laboratory investigations.

	Br. F.		Art. F.		T	P
	x	SD±	x	S.D±		
Hb (g/dI)	11.9600	1.02	11.72	1.34	0.98	> 0.05
Hct (%)	34.34	4.03	32.34	3.95	2.51	< 0.05
BR. viscosity	45.03	4.53	43.18	4.52	2.04	< 0.05
S.I (μg/dI)	90.83	23.38	81.04	27.95	1.90	< 0.05
T.I.B.C (μg/dI)	354.66	49.68	321.36	73.73	2.64	< 0.05

Table 10:   Correlation coefficient (r) and probability value (P) between all parameters among the studied groups.

Parameters	Age		Hb		Hct		Bl.visc		S.I	
	R	P	R	P	R	P	R	P		
Hb	-0.495	< 0.05	-	-						
Hct	-0.343	< 0.05	+ 0.811	< 0.05	-	-				
Bl. visc	-0.308	< 0.05	+ 0.750	< 0.05	+ 0.912	< 0.05	-	-		
S.I	-0.319	< 0.05	+ 0.754	< 0.05	+ 0.756	< 0.05	+ 0.702	< 0.05	-	-
T.I.B.C.	+ 0.521	< 0.05	- 0.807	< 0.05	-0.680	< 0.05	- 0.635	< 0.05	+0.812	< 0.05

Table 11:   Result of T. Test between the different groups regarding to different lab. investigations.

|	< 6 * 6 -		< 6 * 12+		6 - * 12 +	
	T	P	T	P	T	P
- Hb	2.72	< 0.05	4.91	< 0.05	4.99	< 0.05
- Hct	1.55	> 0.05	3.72	< 0.05	3.38	< 0.05
- BI. viscos.	1.60	> 0.05	3.33	< 0.05	2.69	< 0.05
- S.I	2.38	< 0.05	4.02	< 0.05	3.02	< 0.05
- T.I.B.C.	5.41	< 0.05	4.80	< 0.05	1.71	< 0.05

Table 12:   Means and S.D of laboratory investigations among the studied groups according to sex.

	Males		Femals		T	P
	X	S.D ±	X	S.D ±		
- Hb.	11.95	0.98	11.70	1.41	1.06	> 0.05
- Hct.	33.76	3.96	32.79	4.23	1.18	> 0.05
- Bl. visc.	44.33	4.53	43.81	4.71	0.55	> 0.05
- SI.	86.21	27.28	85.58	24.82	0.45	> 0.05
- TIBC.	338.26	69.18	337.68	59.41	0.04	> 0.05
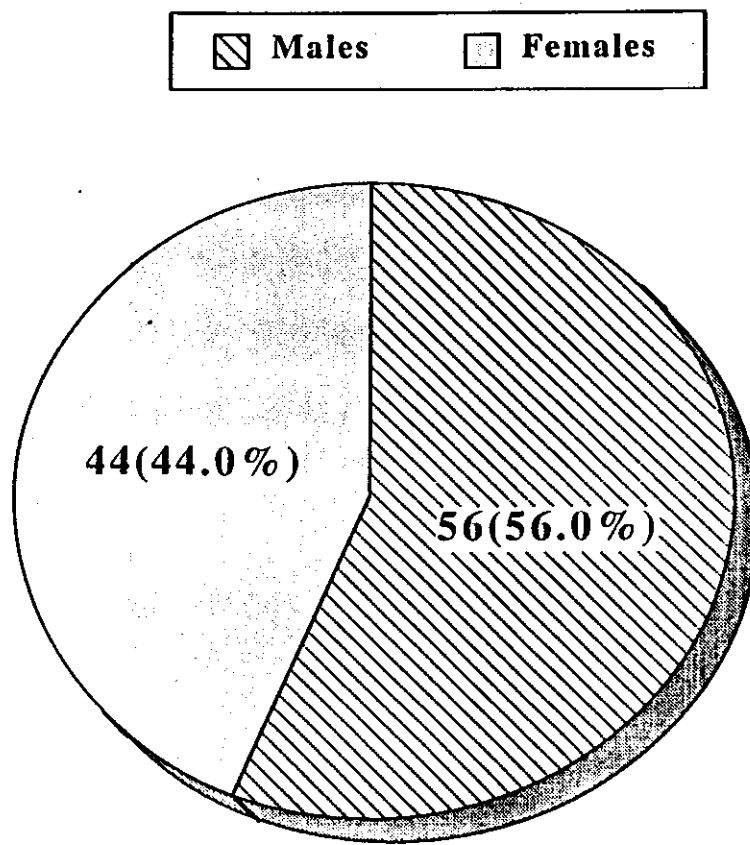
Fig. 1: Sex distribution of the studied groups.
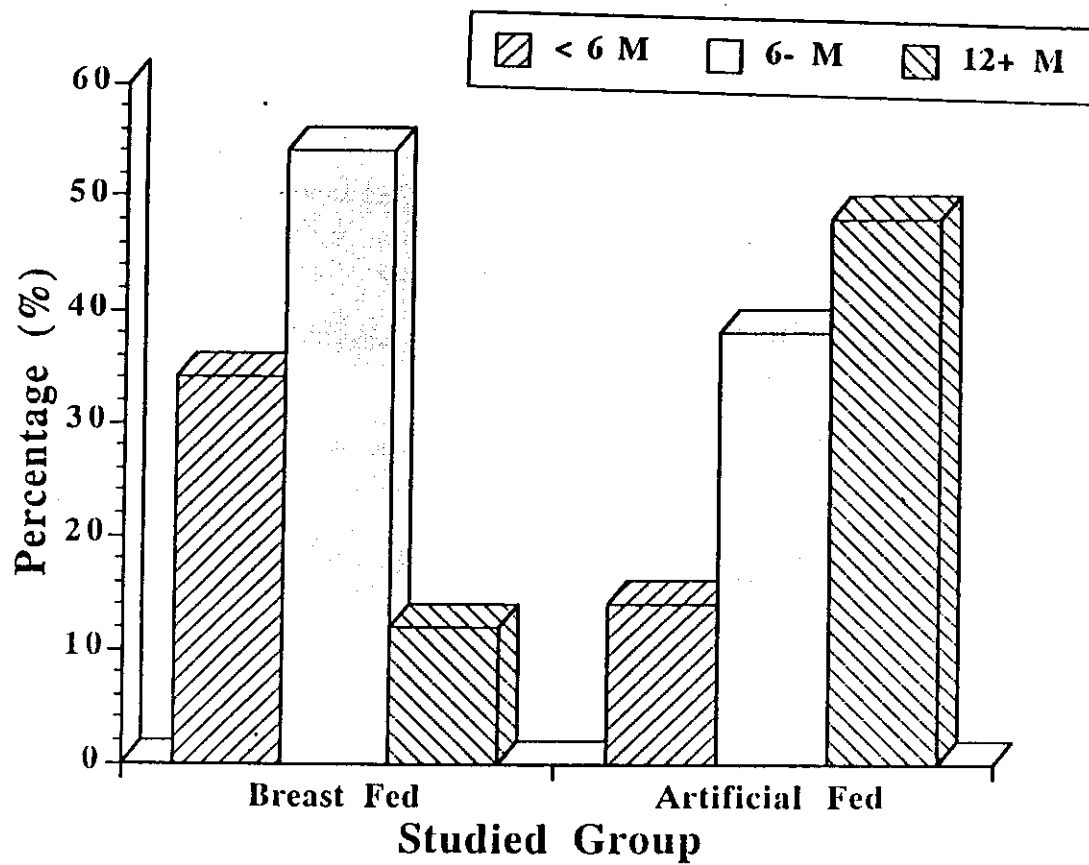
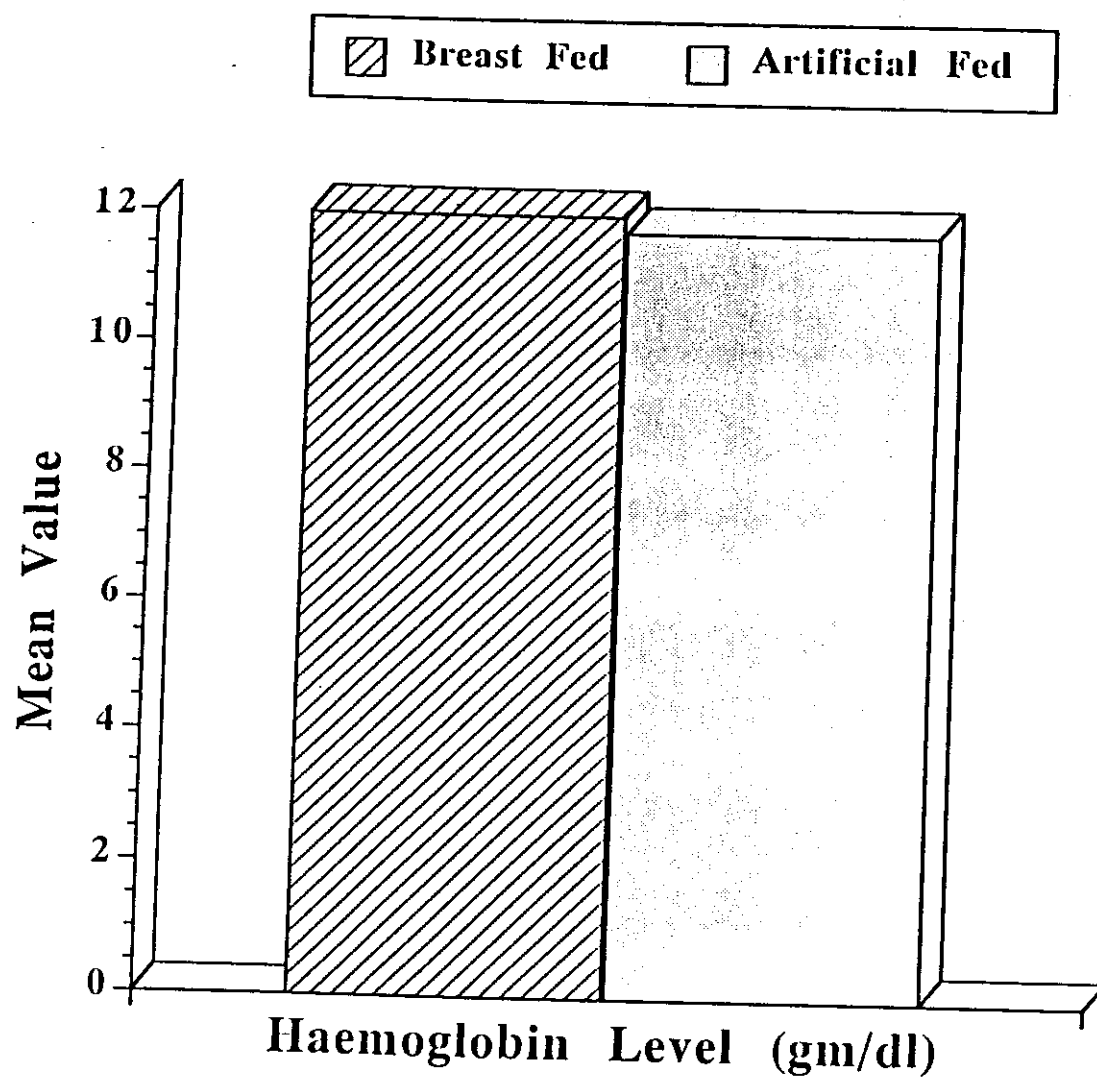**Fig. 2:** Age distribution among the breast fed and the artificial fed infants of the studied groups.

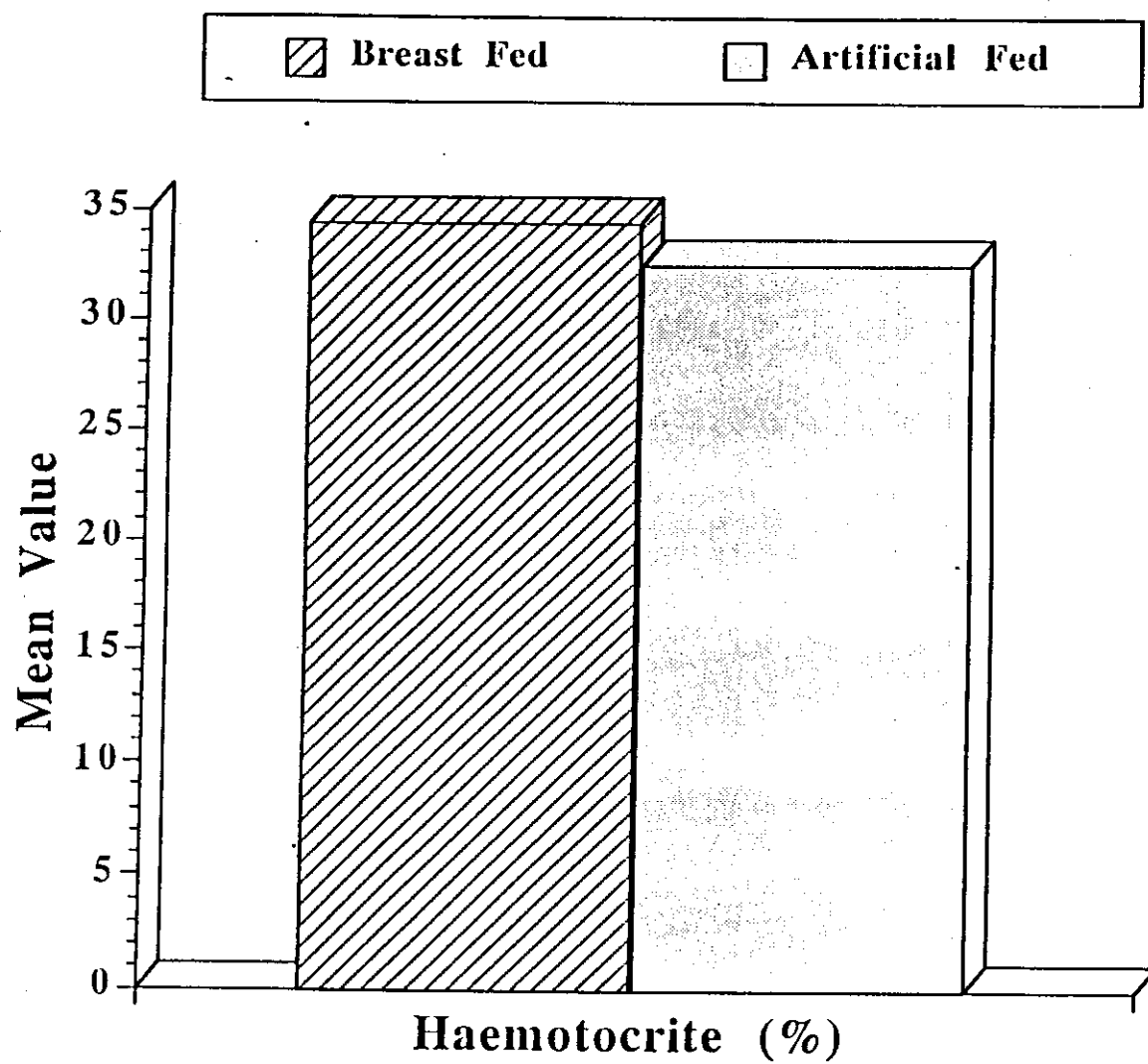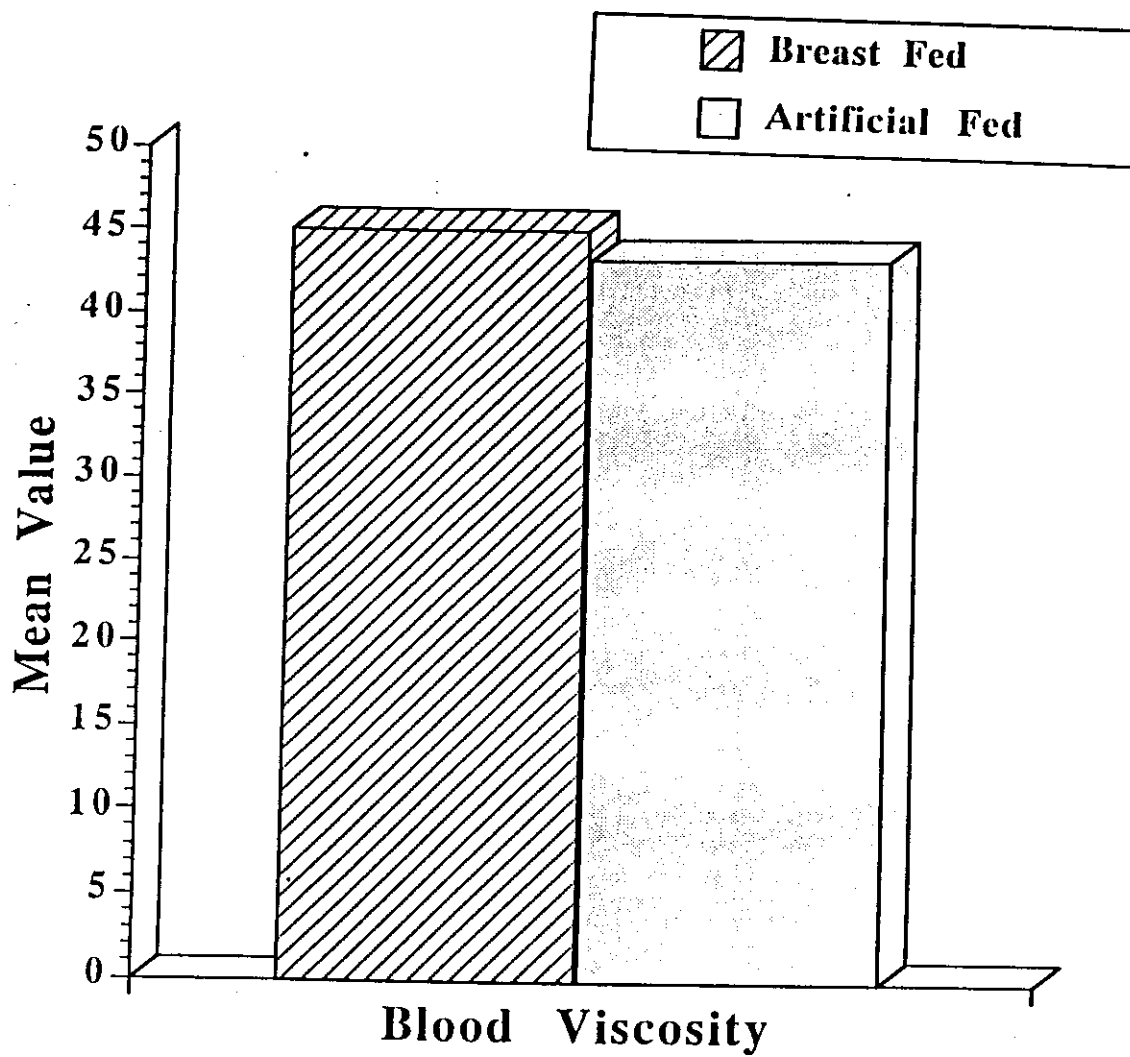**Fig. 3:** Mean value of Hb among the breast fed and artificial fed infants.

Fig. 4: Mean value of Hct among the breast fed and artificial fed infants.

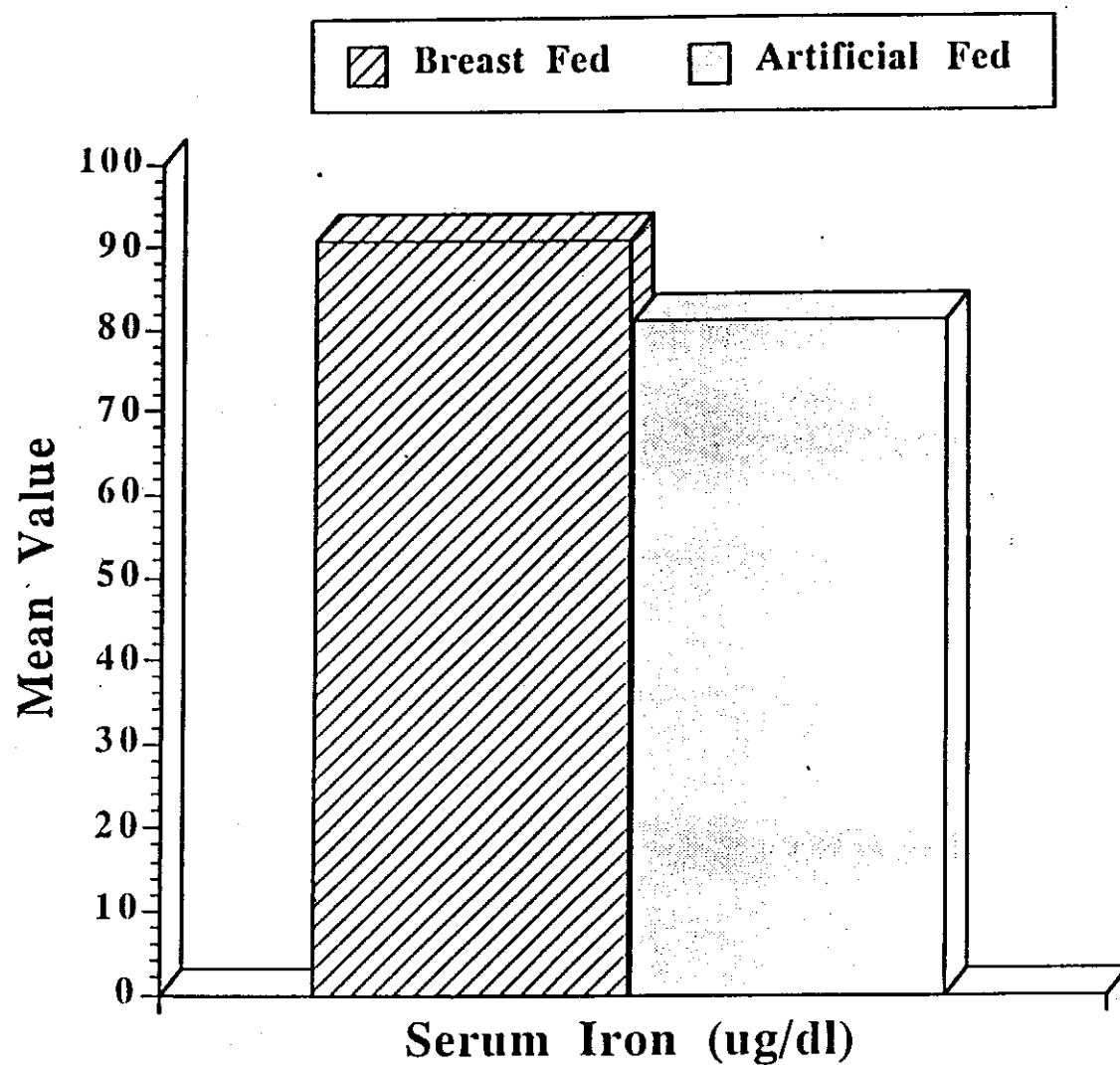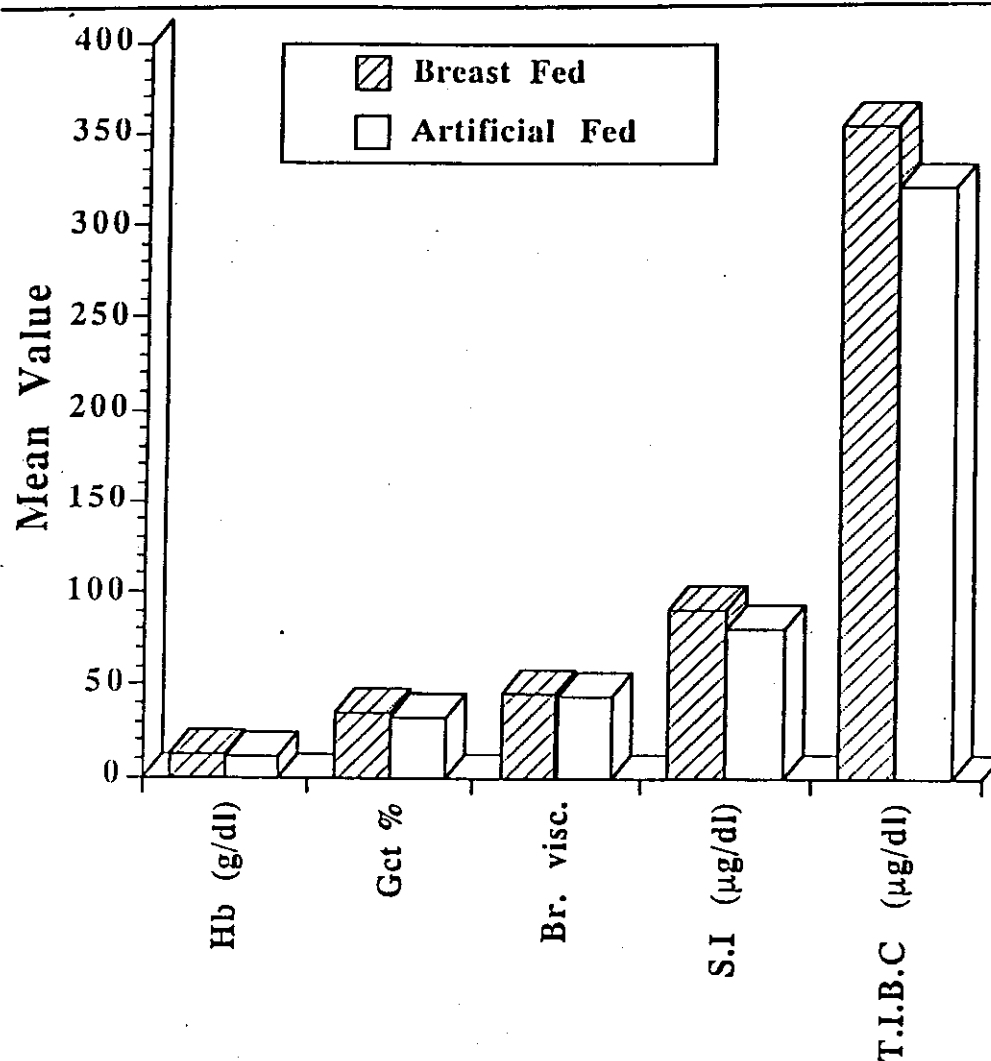Fig. 5: Mean value of bl. viscosity among the breast fed and artificial fed infants.

Fig. 6: Mean value of S.I. among the breast fed and artificial fed infants.

Fig. 7: Mean value of laboratory investigations among the breast ted and artificial infants of the studied groups.
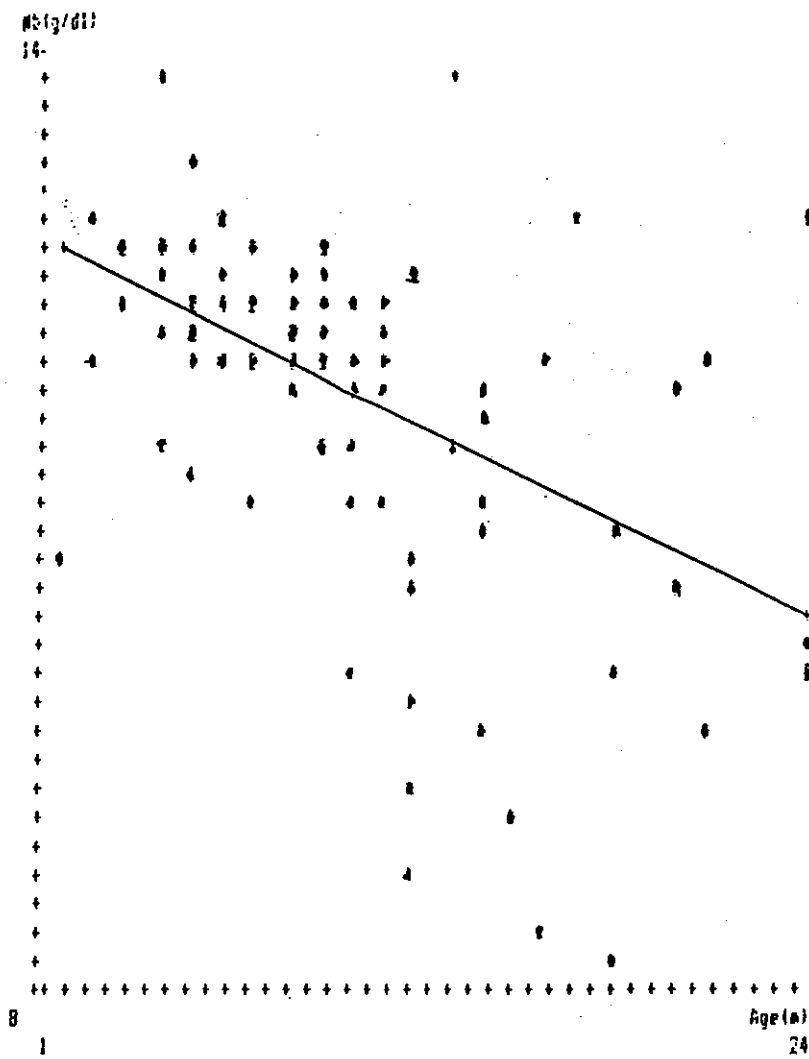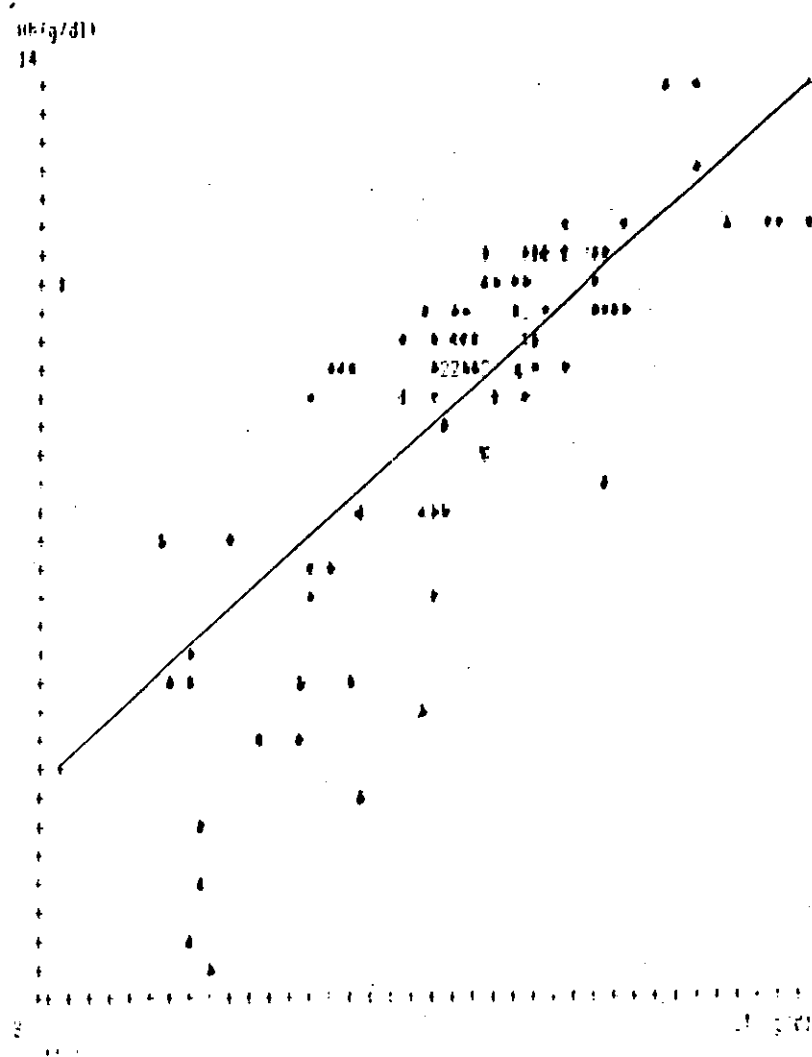
Fig. 8: Relationship between age and Hb level among the studied groups.

Fig. 9: Relationship between Hb level and S.I. among the studied groups.