
Results

RESULTS

In the present study the serum level of sFas/APO-1/ CD95 was measured in 30 patients with ALL on admission, 24 hour after initiation of induction therapy and after 4 week of therapy i.e, (complete induction therapy). The results were correlated with various clinical, hematological and immunophenotypic prognostic criteria.

The results of the present study are summarized in tables (1-26) and figures (1-23).

Patient's characteristics (Table 1-2):

Table (1): **Sex distribution in 30 children with ALL.**

Sex	No.	%
Male	19	63.33
Female	11	36.67
Total	30	100%

Table (1) and Figure (1) show

Sex distribution of patients, 19 were males (63.33%) and 11 were females (36.67).

Fig. (1) : Sex distribution in 30 children with ALL.

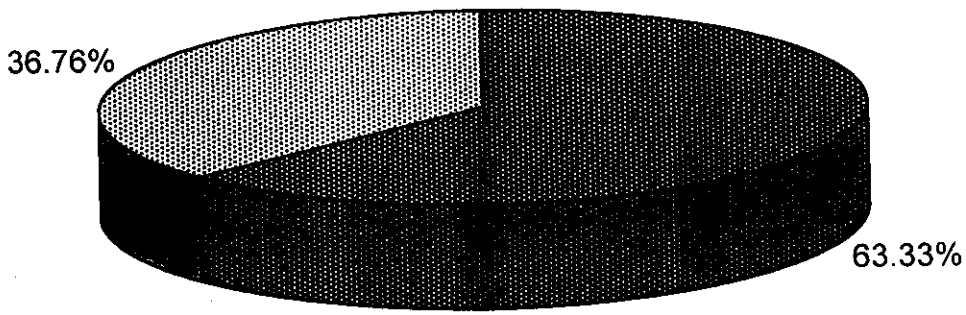


Table (2): **Age distribution in 30 children with ALL.**

Age in year	No.	%
<2 years	2	6.67
2-10 years	24	80.0
>10 years	4	13.33

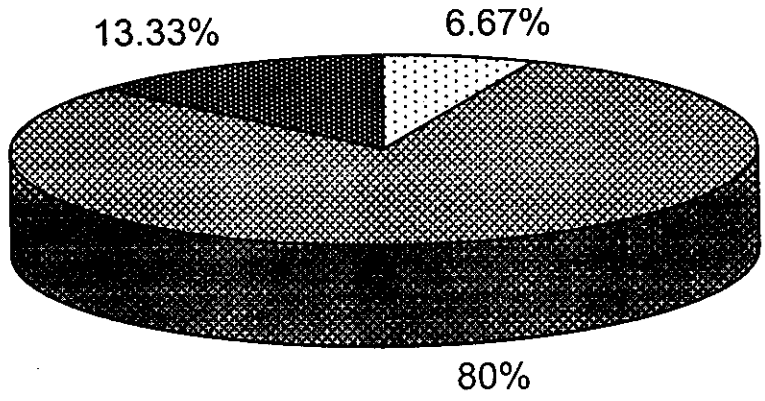
Table (2) and Figure (2) show

- Twenty four patients were in the age ranging from 2-10 years. They represent (80 %) of all studied patients.

- Two patients were less than two years of age. They represent (6.67%) of all studied patients.

- Four patients were above 10 years. They represent (13.33%) of all studied patients.

Fig. (2) : Age distribution in 30 children with ALL.



Clinical picture of studied children are shown in tables 3 and 4:

Table (3): **Presenting symptoms in 30 children with ALL at diagnosis.**

Symptoms	No.	%
Anaemic symptoms (fatigue and pallor)	24	80
Fever	18	60
Bleeding symptoms (bleeding & purpura)	10	33.33
Lymphadenopathy	10	33.33
Bone ache	5	16.67
Abdominal enlargement	4	13.33

Table (3) and Figure (3) show

Anaemic symptoms (fatigue and pallor) were the commonest presenting symptoms as they were found in 24 patients (80%). Fever was the presenting symptoms in 18 patients (60%). Bleeding tendency was observed in 10 patients (33.33%). Lymphadenopathy was the presenting symptoms in 10 cases (33.33%). Bone ache was recorded in 5 patients (16.67%) and progressive abdominal enlargement was found in 4 patients (13.33%).

Fig. (3) : Presenting symptoms in 30 children with ALL.

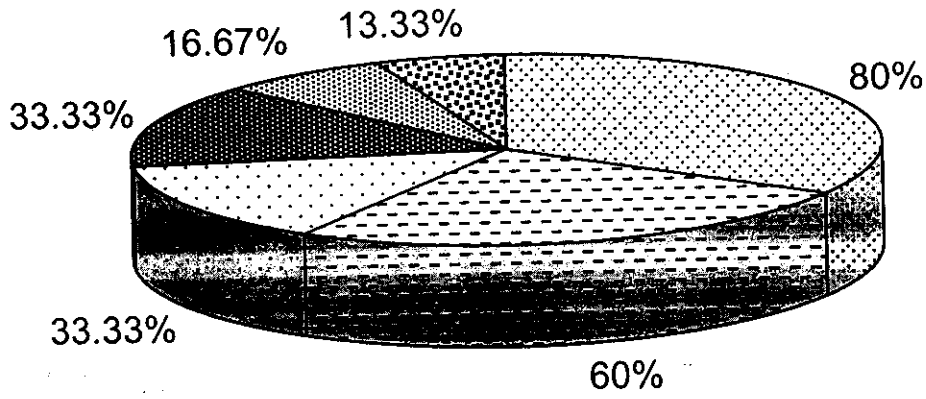


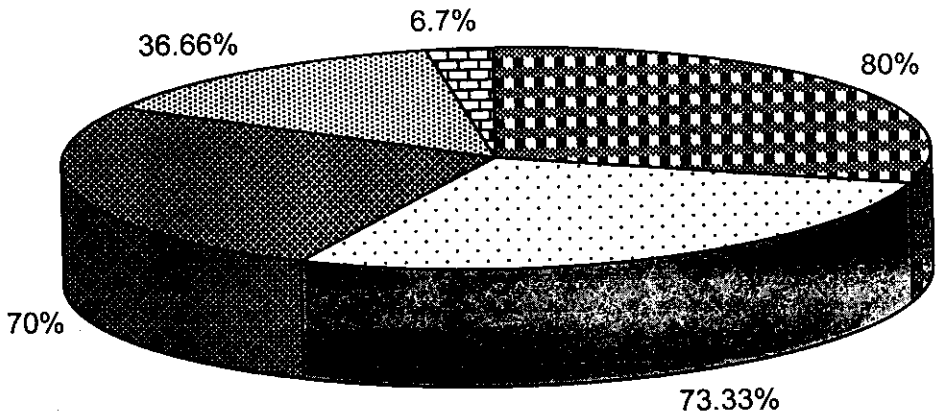
Table (4): **Frequency of physical signs in 30 children with ALL.**

Sign	No.	%
Hepatomegaly	24	80
Lymphadenopathy	22	73.33
Splenomegaly	21	70
Petichea-ecchymosis	11	36.66
Bone tenderness	2	6.7

Table (4) and Figure (4) show

- Eighty percent of the study group has hepatomegaly (24 patients).
- Lymphadenopathy was found in 22 patients (73.33%).
- Twenty one patients had splenomegaly (70%).
- Peticheal haemorrhage and echymosis were found in 11 patients (36.66%).
- Only 2 cases showed bone tenderness (6.7%).

Fig. (4) : Frequency of physical signs in 30 children with ALL.



Laboratory findings:

Table (5): **Total leucocytic count in 30 children with ALL.**

TLC /cmm	No. of cases	%
< 10000	6	20
10000 - 50000	8	26.67
> 50000	16	53.33

Table (5) and Figure (5) show:

- TLC less than 10,000/cmm was found in 6 patients. They represent (20%) of all studied patients.

- TLC ranging from 10,000 - < 50,000/cmm was found in 8 patients. They represent (26.67%) of all studied patients.

- TLC more than 50,000/cmm was found in 16 patients. They represent (53.33%) of all studied patients.

Fig. (5) : Total leucocytic count in 30 children with ALL.

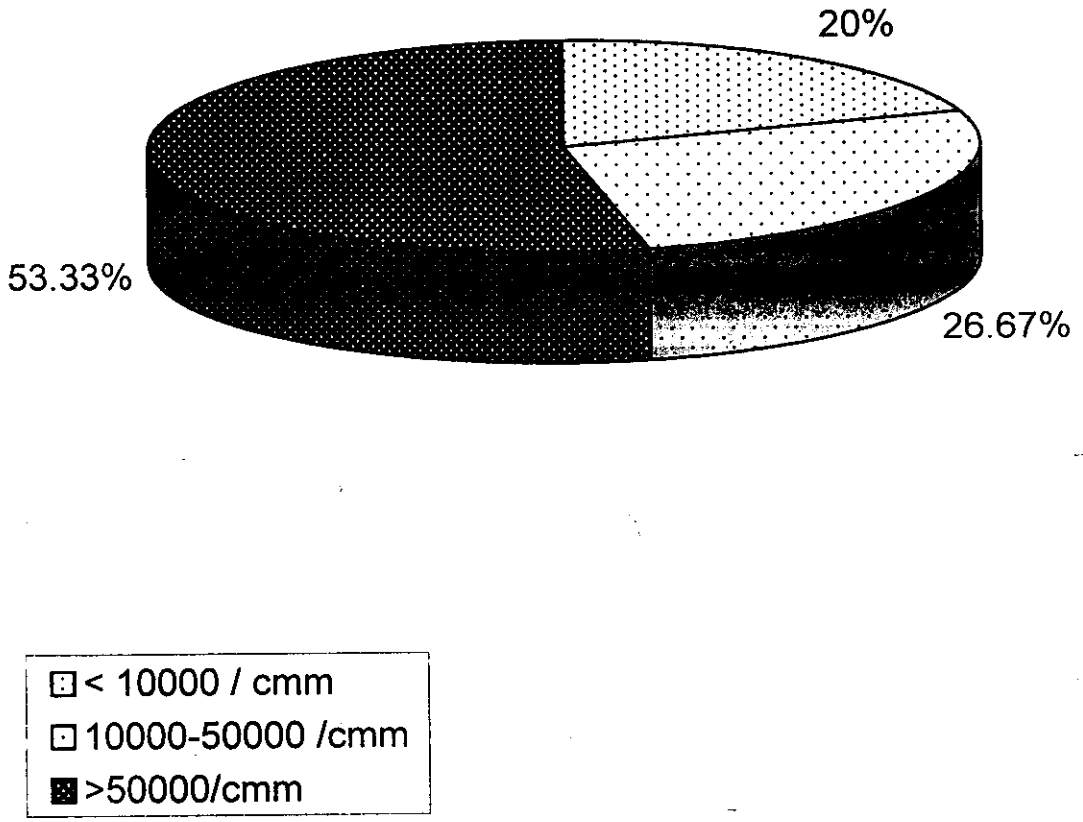


Table (6): **Haemoglobin levels in 30 children with ALL.**

Hg (gm/dl)	No.	%
<7	16	53.33
7-10	11	36.67
≥ 10	3	10

Table (6) and Figure (6) show:

- Haemoglobin less than 7 gm/dl was found in 16 patients. They represent (53.33%) of all studied patients.

- Haemoglobin ranging from 7-10 gm/dl was found in 11 patients. They represent (36.67%) of all studied patients.

- Haemoglobin more than 10 gm/dl was found in only 3 patients. They represent (10%) of all studied patients.

Fig. (6) : Haemoglobin levels in 30 children with ALL.

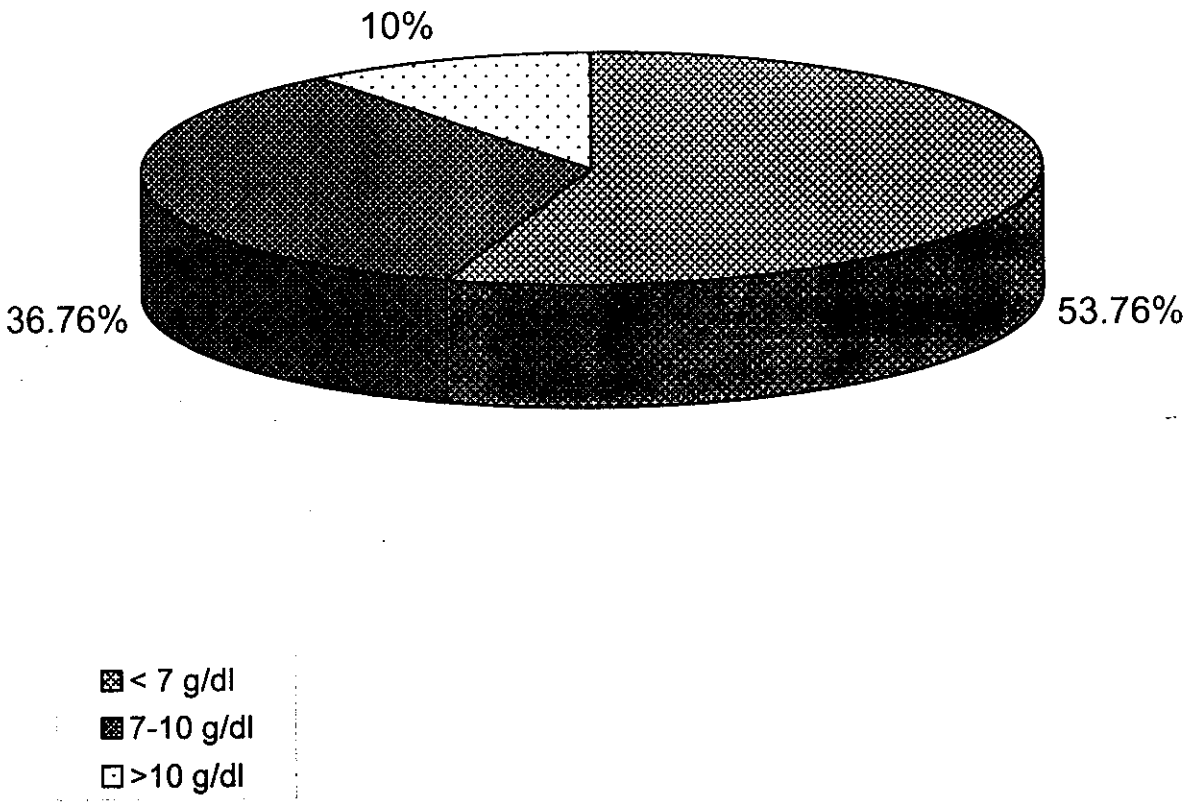


Table (7): **Platelets count in 30 children with ALL.**

Platelets count/cmm	No.	%
< 30.000	10	33.33
30.000 – 100.000	18	60
> 100.000	2	6.67

Table (7) and Figure (7) show:

- Platelets count less than 30.000/cmm was found in 10 patients. They represent (33.33%) of all studied patients.

- Platelets count ranging from 30.000-100.000/cmm was found in 18 patients. They represent (60%) of all studied patients.

- Platelets count more than 100.000/cmm was found in 2 patients. They represent (6.66%) of all studied patients.

Fig. (7) : Platelets count in 30 children with ALL.

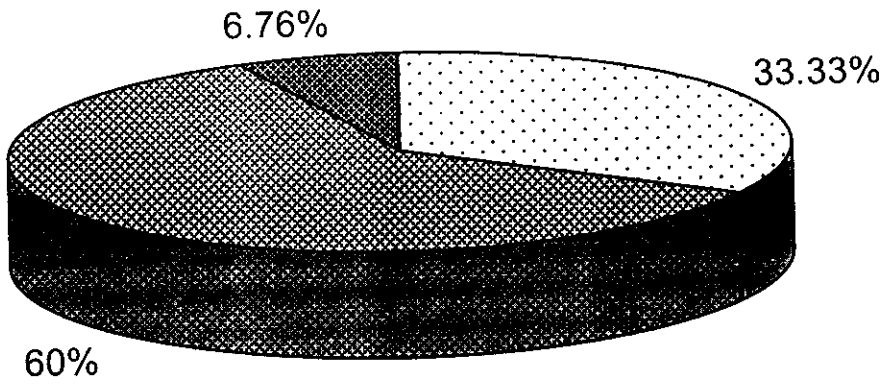


Table (8): **FAB classification in 30 children with ALL.**

FAB	No.	%
L1	4	13.33
L2	25	83.34
L3	1	3.33
Total	30	100.0

Table (8) and Figure (8) show:

- L1 type was found in 4 patients. They represent (13.33%) of all studied patients.

- L2 type was found in 25 patients. They represent (83.34%) of all studied patients.

- L3 type was found in only one patients, that represents (3.33%).

Fig. (8) : FAB classification in 30 children with ALL.

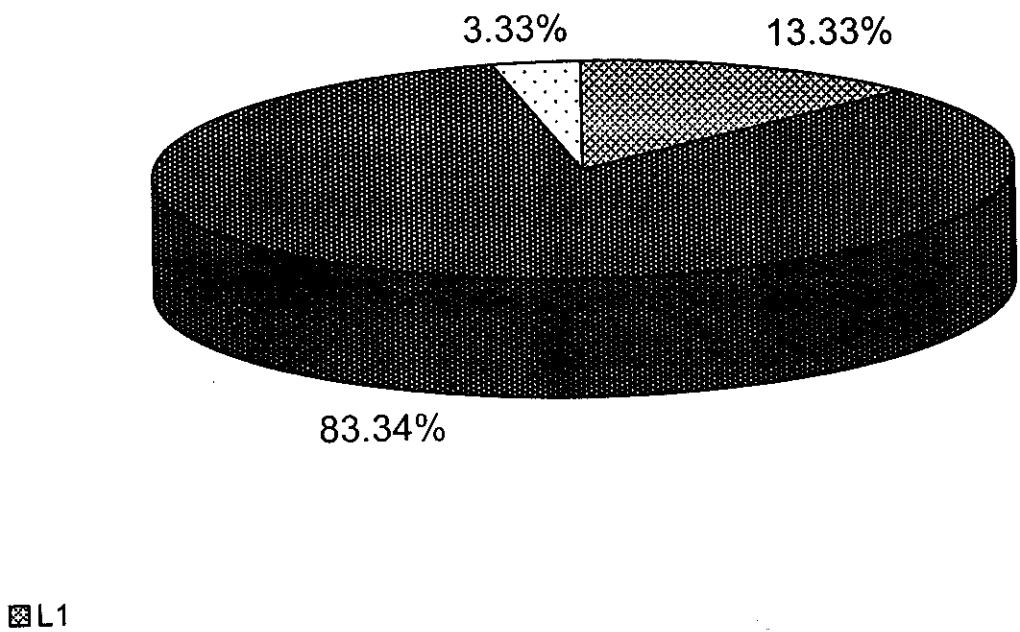


Table (9): **Immunophenotyping in 30 children with ALL.**

Immunophenotyping	No.	%
Early pre B ALL	5	16.67
Pre B ALL	14	46.67
B ALL	4	13.33
T ALL	7	23.33
Total	30	100%

Table (9) and Figure (9) show:

- Early pre B ALL was found in 5 patients. They represent (16.67%) of all studied patients.

- Pre B ALL was found in 14 patients. They represent (46.67%) of all studied patients.

- B ALL was found in 4 patients. They represent (13.33%) of all studied patients.

- T ALL was found in 7 patients. They represent (23.33%) of all studied patients.

Fig. (9) : Immunophenotyping in 30 children with ALL.

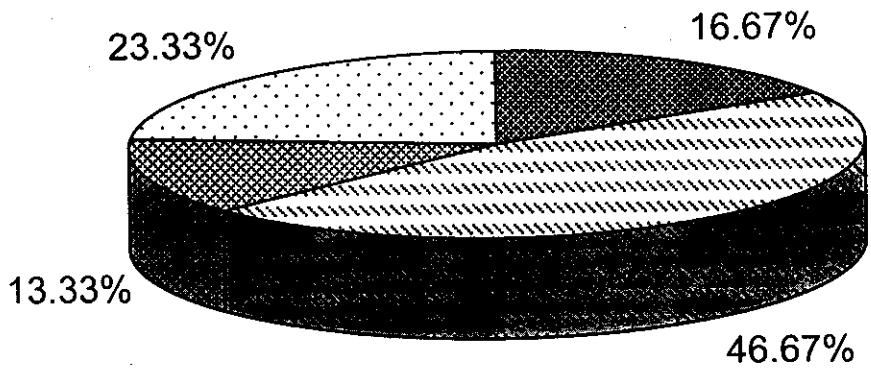


Table (10): **Other laboratory data of studied children with ALL.**

Investigation	No	Percentage
*** Liver enzymes**		
Normal	24	80
Above normal	6	20
*** Kidney functions**		
Normal	28	93.4
Above normal	2	6.6
Uric acid level		
Normal	24	80
Above normal	6	20
LDH		
Normal	16	53.33
Above normal	14	46.67

* Liver enzymes (ALT and AST)

* Kidney function tests (blood urea and serum creatinine)

Table (10) shows:

Some laboratory finding among 30 children with ALL, where serum level of ALT and AST above normal were recorded in 20% of the cases at diagnosis. High blood urea and serum creatinine were found in 6.6% of the cases, while serum uric acid level above normal was found in 20% of the cases and serum LDH level above normal was detected in 46.67% of the cases at diagnosis.

Table (11): **Comparison between cases before therapy and control group regarding mean TLC, Hb level and platelets count and serum LDH level.**

Studied gps / Variable	Cases before therapy Mean ± SE	Controls Mean ± SE	Z	P
TLC	90.726 ± 24.53	6.16 ± 0.37	4.029	<0.001
Hb	6.703 ± 0.40	11.65 ± 0.34	- 4.498	< 0.001
Platelet	45.3 ± 4.81	195. ± 7.93	- 4.685	<0.001
LDH	2241.47 ± 381.30	463.7 ± 32.09	2.905	< 0.01

Table (11) and Figure (10) show:

- There was significant increase in TLC and LDH in cases than control group.

- There was significant decrease in Hb level and platelets count in cases than control group.

Fig. (10) : Comparison between cases before therapy and controls group regarding mean TLC count, Hb level and platelets count.

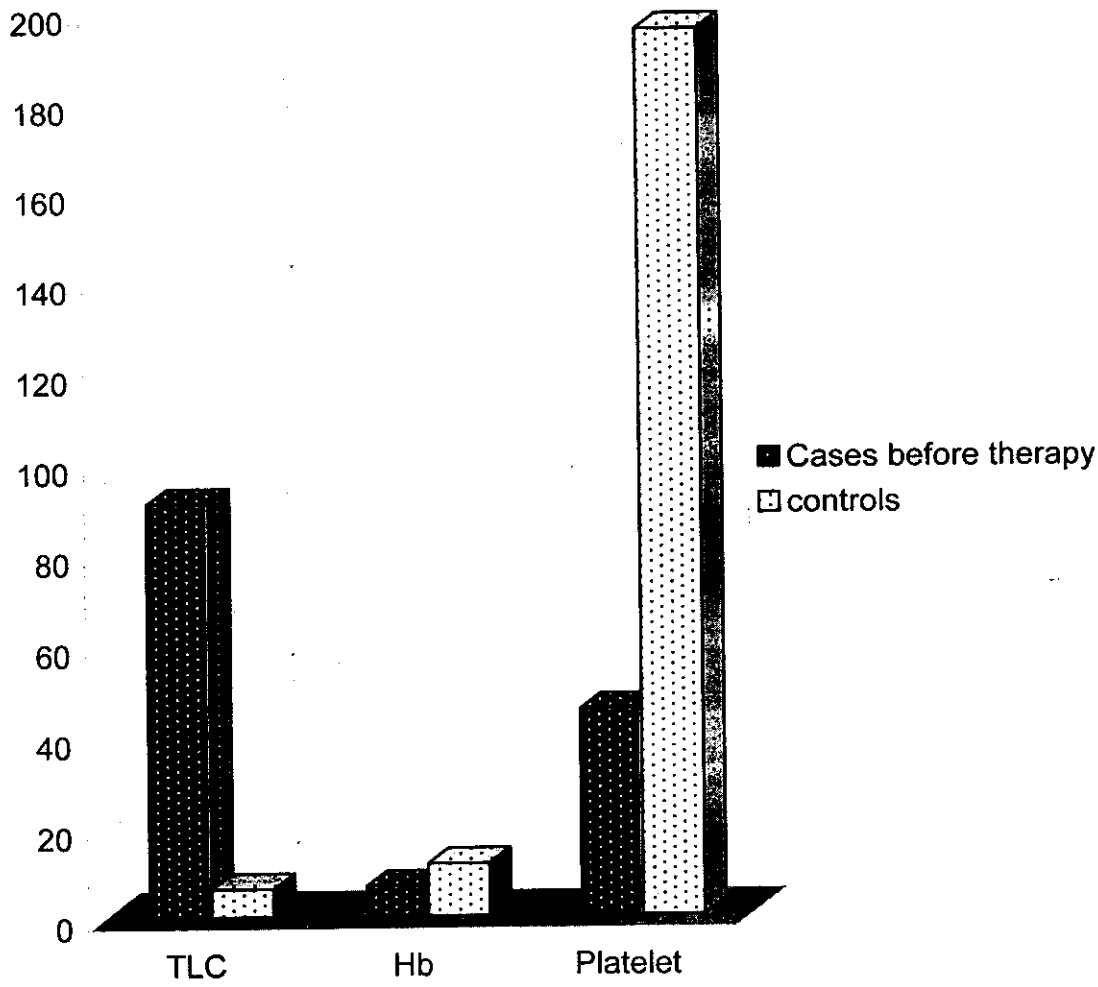


Table (12): **Comparison between cases 1 day after therapy and control group regarding mean TLC, Hb level and platelets count.**

Studied gps / Variable	Cases 1D after ttt Mean ± SE	Controls Mean ± SE	Z	P
TLC	13.651± 4.41	6.16 ± 0.37	0.484	>0.05
Hb	8.297 ± 0.38	11.65 ± 0.34	- 3.904	<0.001
Platelet	46.67 ± 3.39	195 ± 7.93	- 4.682	<0.001

Table (12) and Figure (11) show:

- There was no significant difference in TLC between cases one day after therapy and control group.

- There was significant decrease in Hb level and platelets count in cases one days after therapy than control group.

Fig. (11) : Comparison between cases 1 day after therapy and conrol group regarding mean TLC, Hb level and plateles count.

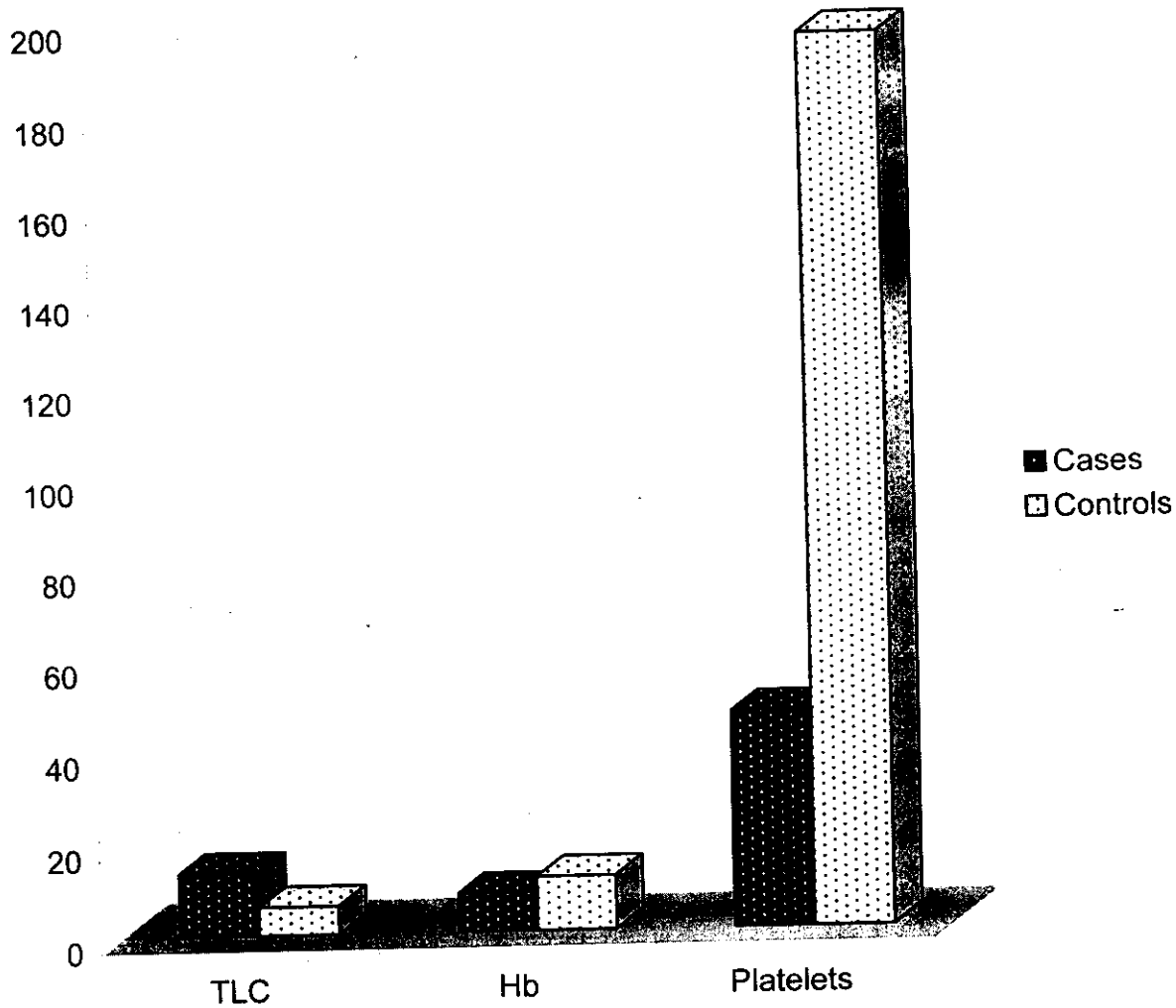


Table (13): **Comparison between cases 1 month after treatment and control group regarding mean TLC, Hb level and platelets count.**

Studied gps. / Variables	Cases 1 month after ttt Mean ± SE	Controls Mean ± SE	Z	P
TLC	8.112 ± 2.52	6.16 ± 0.37	2.867	< 0.05
Hb	10.332 ± 0.26	11.65 ± 0.34	- 2.867	< 0.05
Platelet	121.25 ± 6.23	195 ± 7.93	- 4.160	< 0.001

Table (13) and Figure (12) show:

- There was significant increase in TLC in cases one month after therapy than control group.

- There was significant decrease in Hb level and platelets count in cases one month after therapy than control group.

Fig. (12) : Comparison between cases 1 month after treatment and control group regarding mean TLC, Hb level and platelets count.

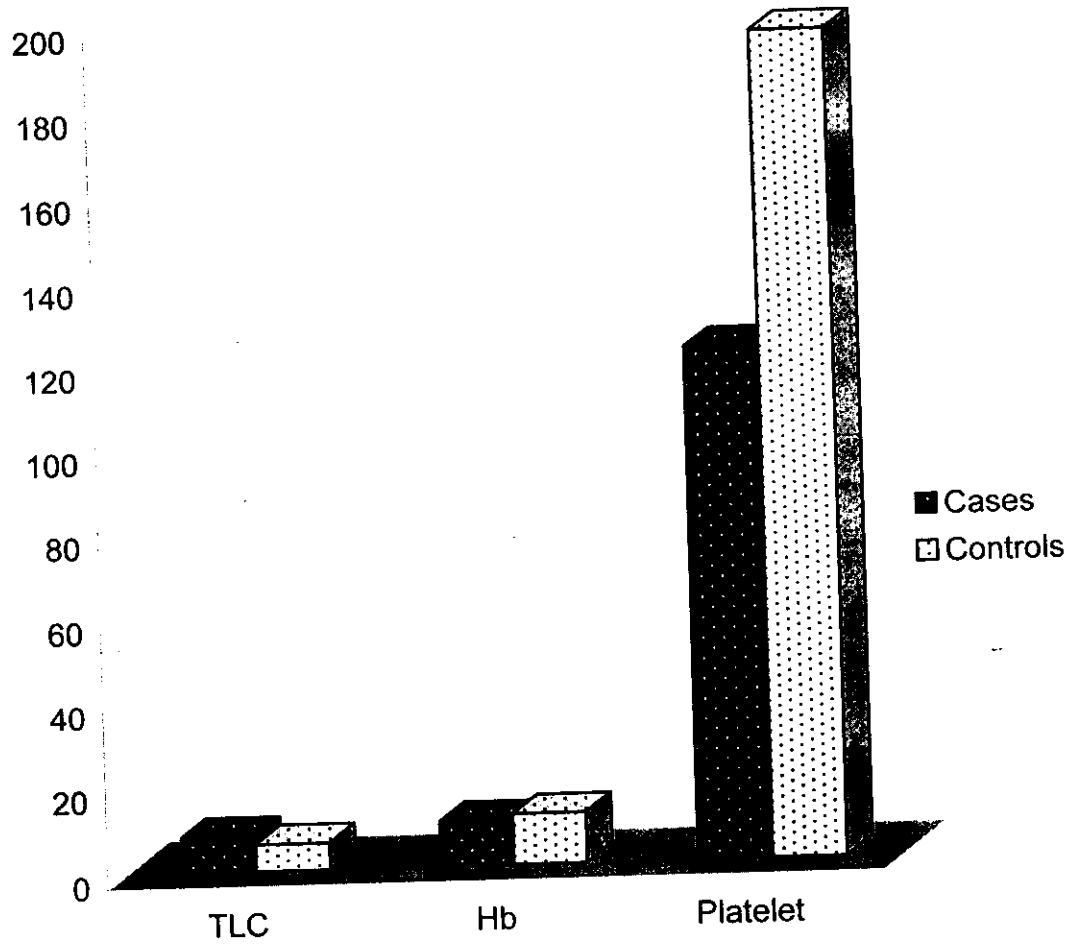


Table (14): **Comparison between mean TLC in the studied cases before, 1 day and 1 month after start of therapy.**

TLC / Phase	Range (cmm)	Mean ± SE	t-value	P
Before	6-608.7(10)^3	90.726± 24.53	3.258	<0.001
1 day	1.65-104(10)^3	13.651±4.41		
Before	6-608.7(10)^3	90.726±24.53	3.591	<0.001
1 month	3.9-66.1(10)^3	11.89 ± 2.52		
1 day	1.65-104(10)^3	13.651± 4.41	0.668	>0.05
1 month	3.9 –66.1(10)^3	11.89± 2.52		

Table (14) and Figure (13) show:

- There was highly significant difference between mean TLC before and one day after initiation of induction therapy being higher before treatment.

- Also there was significant decrease in mean TLC one month after induction therapy than before treatment.

- There was no significant difference between mean TLC one day and one month after induction therapy.

Fig. (13) : Comparison between mean TLC count in the studied cases before, 1 day and 1 month after strat of therapy.

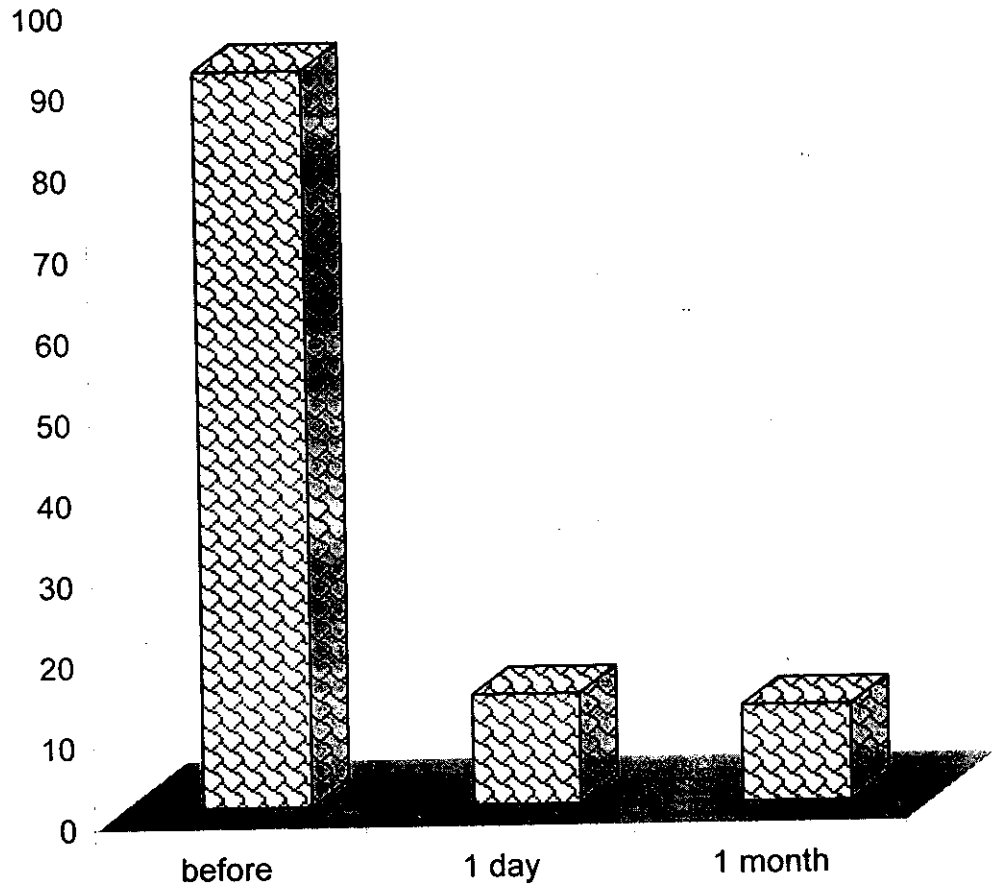


Table (15): **Comparison between mean Hb levels in the studied cases before, 1 day and 1 month after start of therapy.**

Hb / Phase	Range (g/dl)	Mean ± SE (g/dl)	t-value	P
Before	2.7-10.6	6.703± 0.40	- 3.074	< 0.01
1 day	4.3-12.5	8.297 ± 0.38		
Before	2.7-10.6	6.703 ± 0.40	- 6.667	< 0.001
1 month	6.7-12.5	10.09 ± 0.26		
1 day	4.3-12.5	8.029 ± 0.38	- 3.740	< 0.001
1 month	6.7-12.5	10.09 ± 0.26		

Table (15) and Figure (14) show:

- There was significant increase in mean Hb levels one day after therapy than before start of therapy.

- Significant increase in mean Hb levels one month after therapy than before start of therapy.

- Significant increase in mean Hb levels one month after start of therapy than one day after therapy.

Fig. (14) Comparison between mean Hb levels in the studied cases before, 1 day and 1 month after start of therapy.

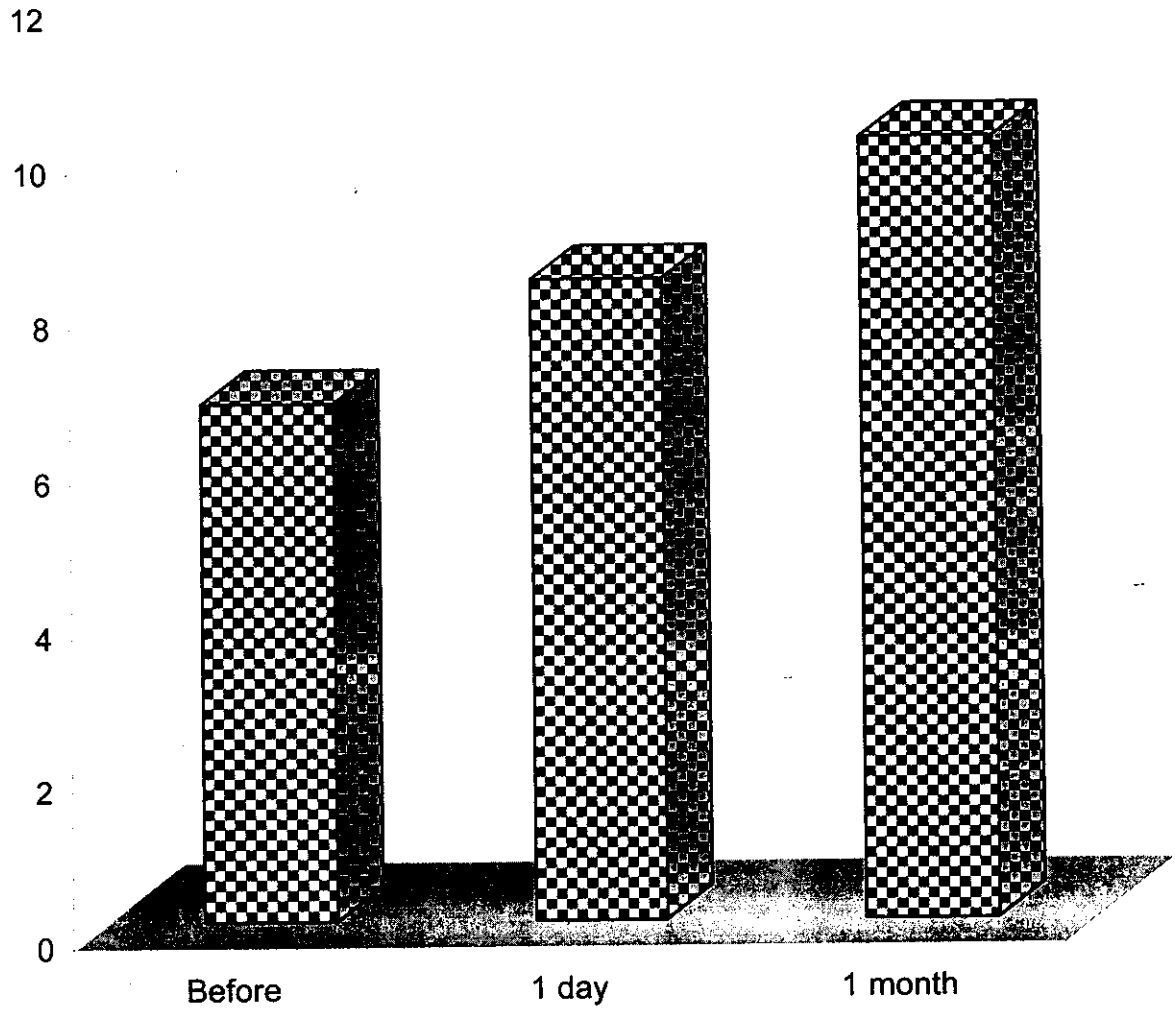


Table (16): **Comparison between mean platelets count of the studied cases before, 1 day and 1 month after start of therapy.**

Platelets / Phase	Range (cmm)	Mean ± SE (cmm)	t-value	P
Before	19-103(10)^3	45.3 ± 4.81	- 0.519	
1 day	17-90 (10)^3	46.67 ± 3.39		>0.05
Before	19-103(10)^3	45.3 ± 4.81	- 9.037	
1 month	66-193(10)^3	121.25 ± 6.23		<0.001
1 day	17-90 (10)^3	46.67 ± 2.39	- 10.094	
1 month	66-193(10)^3	121.25 ± 6.23		<0.001

Table (16) and Figure (15) show:

- There was no significant difference between mean platelets count before and one day after start of therapy.

- Highly significant increase in mean platelets count one month after therapy than before treatment.

- Highly significant increase in mean platelets count one month after therapy, than one day after start of therapy.

Fig. (15) : Comparison between mean platelets count in the studied cases before, 1 day and 1 month after start of therapy.

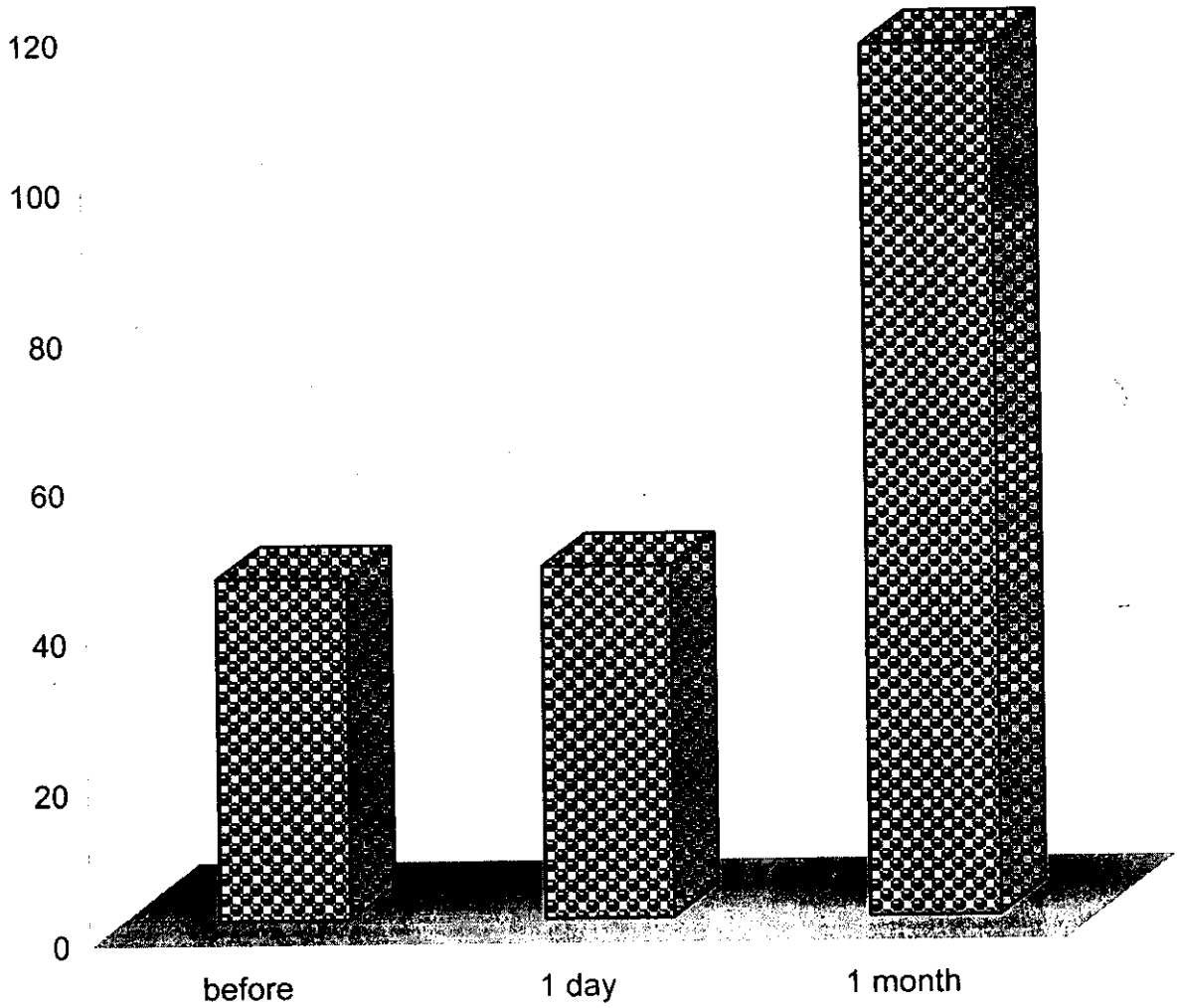


Table (17) : **Comparison between mean number of blast cells in peripheral blood in the studied cases before, 1 day and 1 month after start of therapy.**

Blast cells / Phase	Range (%)	Mean ± SE (%)	t-value	P
Before	39-97	80.603 ± 2.58	6.452	< 0.001
1 day	33-90	74.033 ± 2.54		
Before	39-97	80.603 ± 2.58	31.740	< 0.001
1 month	0-16	1.069 ± 0.74		
1 day	33-90	74.033 ± 2.54	29.114	< 0.001
1 month	0-16	1.069 ± 0.74		

Table (17) and Figure (16) show :

- There was highly significant decrease in mean number of blast cells count after one day therapy than before start of therapy.

- There was highly significant decrease in mean number of blast cells count one month after therapy than before start of therapy.

- There was highly significant decrease in mean number of blast cells count after end of induction therapy than one day after therapy.

Fig. (16) : Comparison between mean number of blast cells in peripheral blood in the studied cases before, 1 day and 1 month after start of therapy.

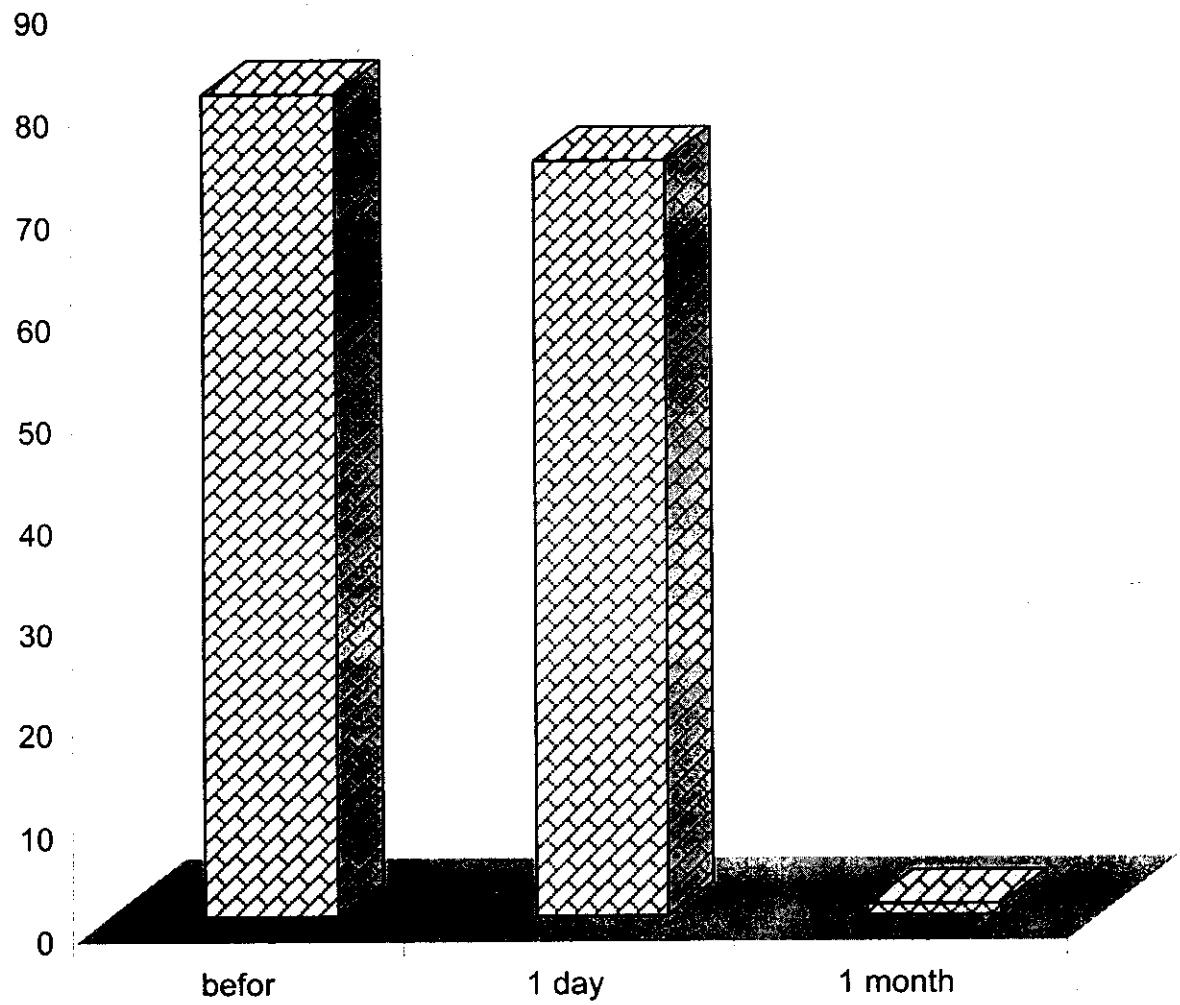


Table (18) : **Comparison between mean bone marrow blast cell count in studied patients at diagnosis and after end of induction therapy.**

Blast cells / Phase	Range (%)	Mean ± SE (%)	t-value	P
Before	25-97	84.833 ± 2.93	23.615	< 0.001
1 month	0-27	2.074 ± 1.18		

Table (18) and Figure (17) show :

- There was highly significant decrease in mean number of blast cells in bone marrow after end of induction therapy than at diagnosis.

Fig. (17) : Comparison between mean bone marrow blast cells count in studied patients at diagnosis and after end of induction therapy.

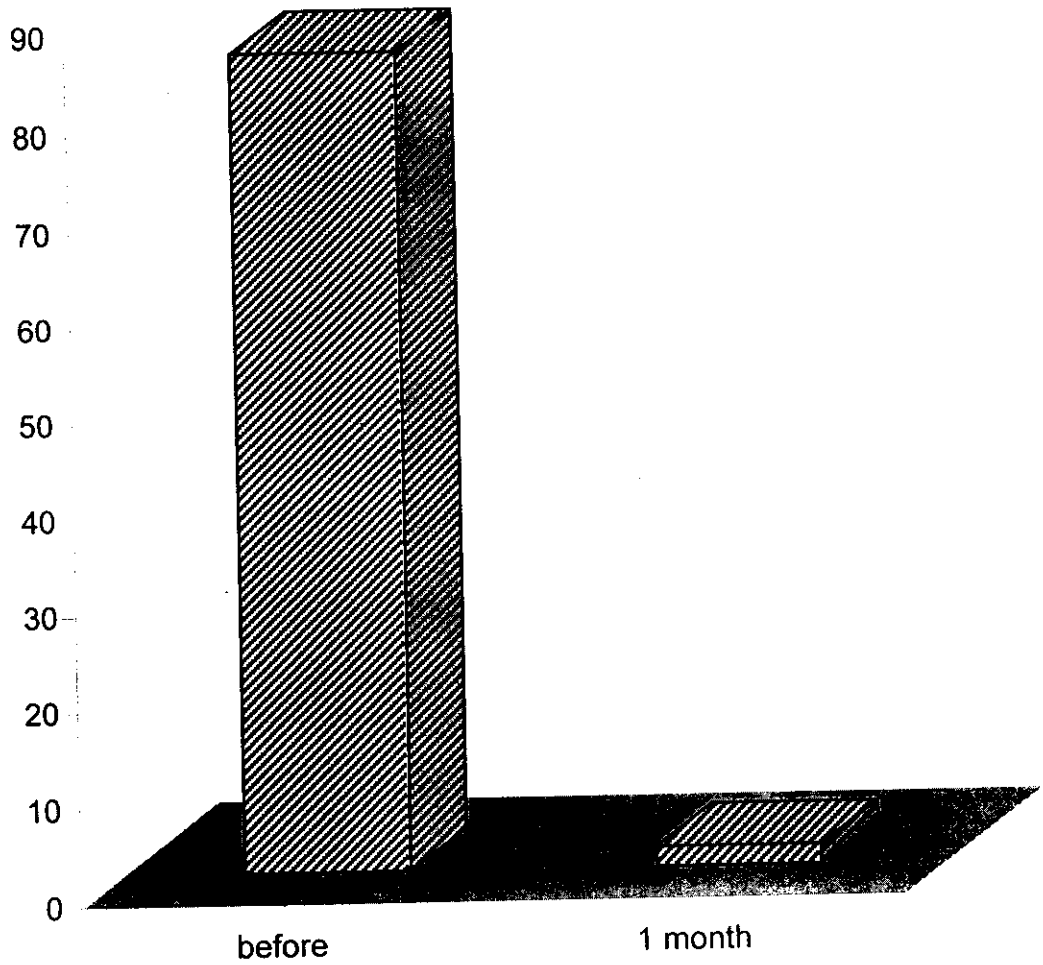


Table (19): **Comparison between mean serum levels of sFas in patients of ALL before therapy and control group.**

Blast cells / Phase	Range (ng/ml)	Mean ±SEM (ng/ml)	Z	P
Case before ttt (n=30)	2.4 - 14	7.79 ± 0.74	4.685	<0.001
Control (n = 10)	1 – 2.1	1.62 ± 0.12		

Table (19) and Figure (18) shows:

- There was highly significant increase of serum sFas level in patients in comparison to control group.

Fig. (18) : Comparison between mean serum levels of sFas in patients of ALL before Therapy and control group

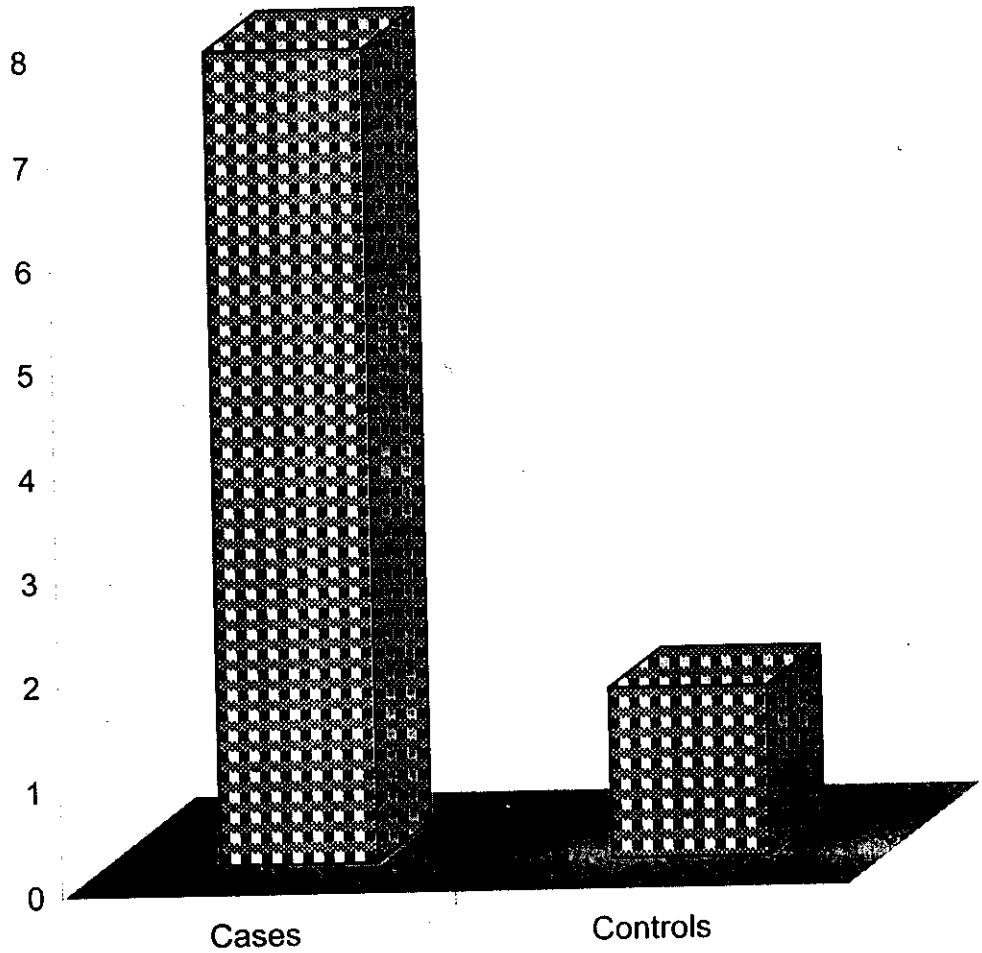


Table (20): **Comparison between mean serum levels of sFas in the studied cases before, 1 day and 1 month after start of therapy.**

sFas / Phase	Range (ng/ml)	Mean ± SE (ng/ml)	t-value	P
Before	2.4-14	7.79 ± 0.74	0.422	>0.05
1 day	2-13.3	6.69 ± 0.70		
Before	2.5-14	7.79 ± 0.74	6.823	<0.001
1 month	1-13.2	2.756 ± 0.53		
1 day	2-13.3	6.69 ± 0.70	6.035	<0.05
1 month	1-13.2	2.756 ± 0.53		

Table (20) and Figure (19) show :

- There was no significant difference between mean of serum sFas level before and after one day of induction therapy.

- There was highly significant decrease in mean of serum sFas level after one month of induction therapy than before therapy.

- There was significant decrease in mean of serum sFas level after 1 month of induction therapy and 1 day after therapy.

Fg. (19) : Comparison between the mean serum levels of sFas in the studied cases before,1 day and 1 month after start of therapy.

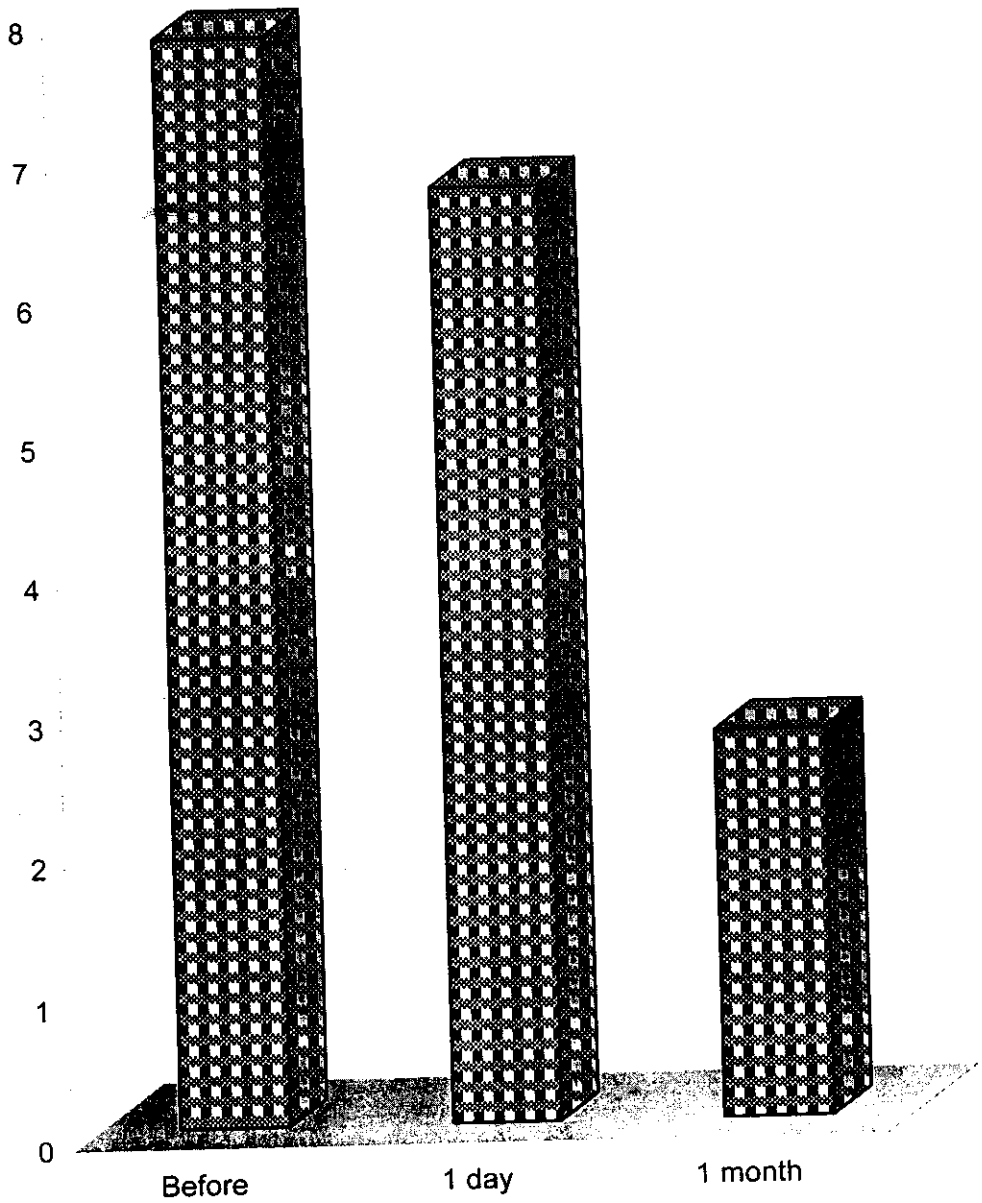


Table (21): **Distribution of 30 children with ALL according to risk factors.**

Parameters	High risk group		Low risk group	
	No.	%	No.	%
Patients data				
* Age	5	16.67	25	83.33
* Sex	19	63.33	11	36.67
Clinical presentation:				
* Organomegaly	16	53.33	14	46.67
Hematological data				
* Hb level gm/dl	3	10	16	53.33
* TLC x 10^3 /cmm	16	53.33	6	20
* Platelet x 10^3/cmm	10	33.33	2	6.67
Morphological classification				
* L1	-	-	4	13.33
* L2	25	80	-	-
* L3	1	6.67	-	-
Immunophenotyping				
* Early pre B ALL	-	-	5	16.67
* Pre B ALL	-	-	14	46.67
* B ALL	4	13.33	-	-
* T ALL	7	23.33	-	-
LDH	14	46.67	16	53.33

High risk group characterized by:

- Age less than 1 year or more than 10 years.
- Male.
- Hepatosplenomegaly and lymphadenopathy.
- Haemoglobin more than 10 gm/dl.
- TLC more than 50 x 10^3/cmm.
- Platelets count less than 30 x 10^3/cmm.
- L2 or L3 according FAB classification.
- B or T-cell type according to immunophenotyping.

Low risk group characterized by:

- Age between 1-10 years.
- Female.
- Absence of organomegaly.
- Haemoglobin less than 7 gm/dl.
- TLC less than 10 x 10^3/cmm.
- Platelets count more than 100 x 10^3/cmm.
- L1 according to FAB classification.
- Early pre B or pre B according to immunophenotyping.

Fig. (20) : Distribution of 30 children with ALL according to risk factors.

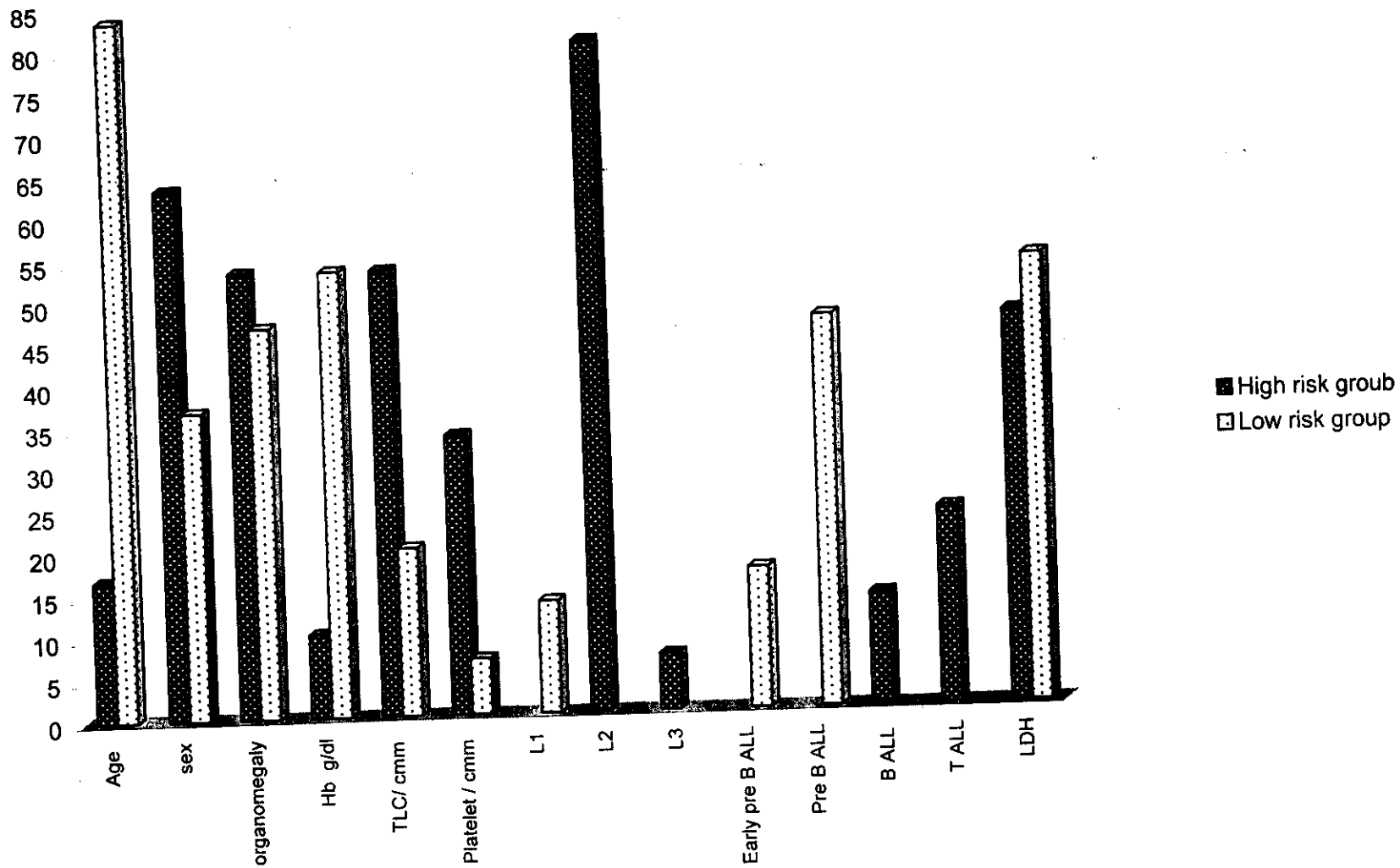


Table (22): **Comparison between serum sFas levels in low and high risk groups ALL children.**

sFas (ng/ml) / risk factors	Low risk Mean ± SD	High risk Mean ± SD	t	P
Age	7.117 ± 4	10.417 ± 2.623	1.697	<0.05*
Sex	6.982 ±3.798	8.258 ± 4.229	- 0.667	>0.05
Oranomegally	8.40 ± 4.379	7.591 ± 5.057	0.431	>0.05
Haemoglobin	6.80 ± 3.90	7.96 ± 5.16	0.377	>0.05
Platelets	9.45 ± 6.29	7.32 ± 3.57	0.465	>0.05
TLC	4.33 ± 2.56	10.25 ± 3.73	2.079	<0.05*
LDH	4.763 ± 1.572	11.25 ± 3.116	3.117	<0.001*
IPT	6.047 ± 3.413	10.8 ± 3.324	2.453	<0.01*
FAB	6.9 ± 5.06	7.926 ± 3.986	0.427	>0.05

Table (22) and Figure (21) show:

- There was significant increase in serum Fas level in high risk group than low risk group regarding to age, TLC, LDH and IPT.

- There was no significant difference in serum Fas between high and low risk group regarding to sex organomegally, platelets count haemoglobin level and FAB classification.

Fig. (21) : Comparison between serum sFas levels in low and high risk groups ALL children.

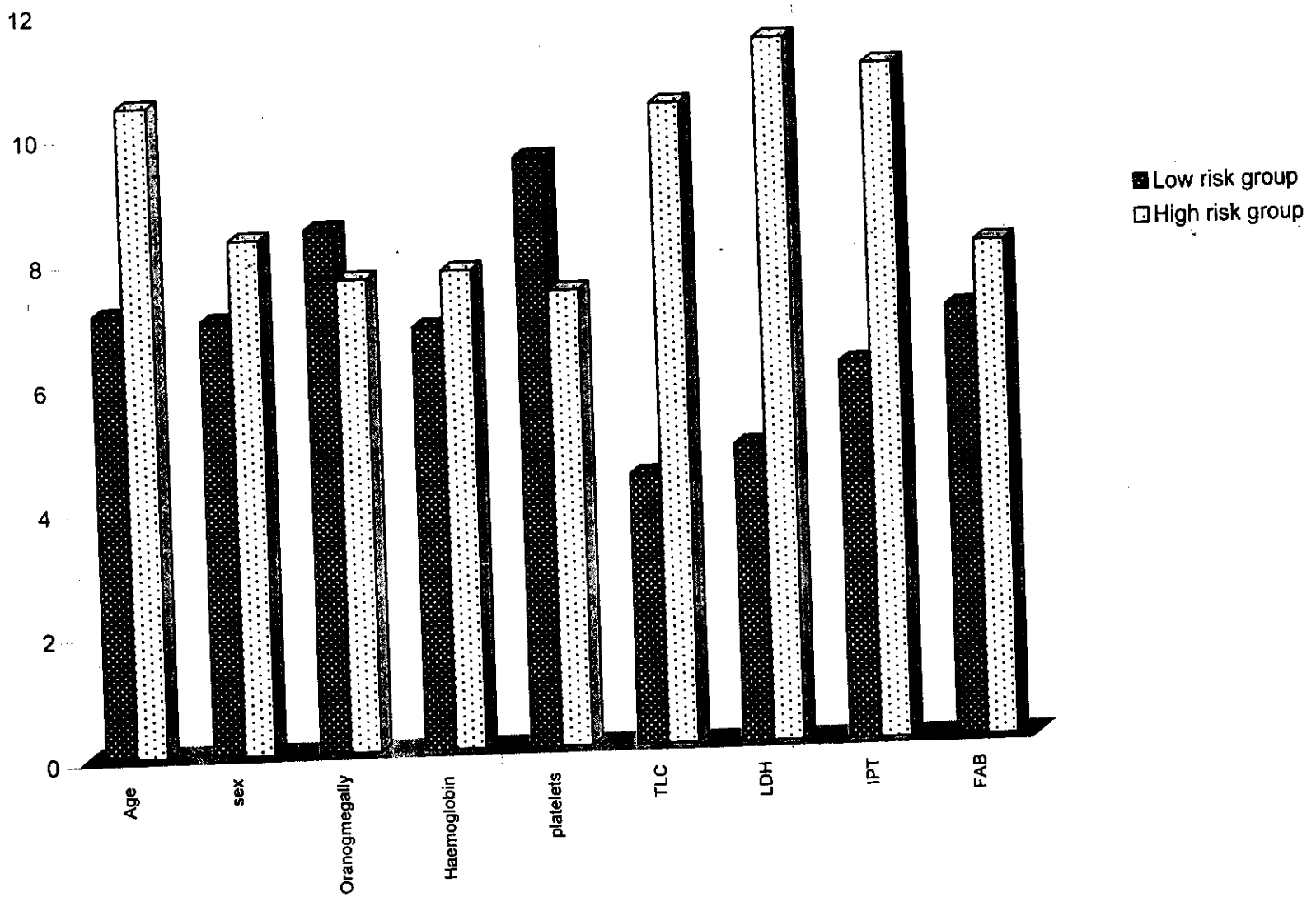


Table (23): **Correlations between serum sFas level & prognostic factors at diagnosis.**

sFas / Prognostic factors	r	P
Age	- 0.1029	>0.05
Sex	0.1059	> 0.05
Organomegally	0.2727	>0.05
Haemoglobin	0.2043	> 0.05
TLC	0.7281	<0.05
Platelets	- 0.3750	>0.05
Blast cells	0.2937	> 0.05
FAB	0.2413	>0.05
IPT	0.6326	<0.05
LDH	0.7708	<0.05

Table (23) shows:

- There were significance positive correlations between the serum sFas level and TLC, IPT, LDH.

- There was no significance correlations between the serum sFas level and age, sex, organomegally haemoglobin level, platelets count, blast cell count, and FAB classification.

Table (24): **Results of induction therapy in 30 children with ALL.**

Results	No.	%
Complete remission	26	86.6
Refractory	2	6.7
Death	2	6.7

Table (24) and Figure (23) show:

Twenty six cases achieved complete remission (86.6%), two patients (6.7%) died during induction, and another two patients (6.7%) were refractory to induction therapy.

Fig. (23) : Results of induction therapy in 30 children with ALL.

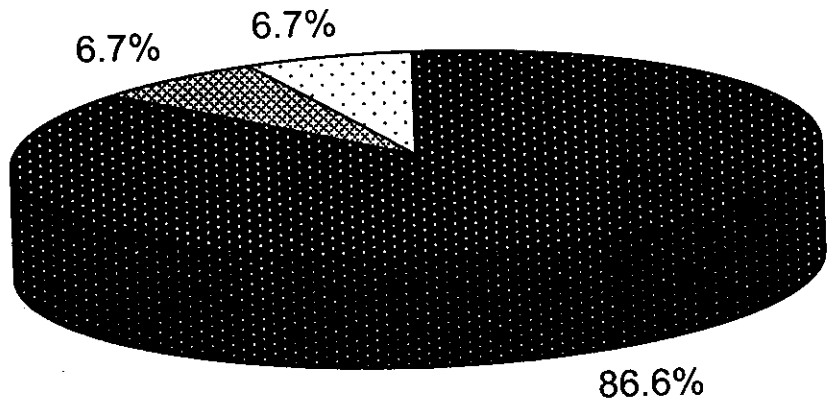


Table (25) clinical and laboratory data in patients with ALL

		Clinical Data					Laboratory Investigation												Laboratory Investigation									
			Clinical Examination				Peripheral Blood Examination												Bone marrow examination									
							Before therapy				1day after therapy				4 week after therapy													
2	m	pallor, Fever, purpura	+		+	+	606.7	2.7	31	97	12.6	7	46.7	80					97		T	L2	3	0.47	271	318	12.6	1361	14	13.3	death
38	m	Pallor, Fever, Abd. Enlarg	+	+	+		100	6.5	31	90	1.65	10.3	17	80	8.5	10	100	0	97	0	B	L2	3	0.6	41	30	3.3	2000	13	10.6	2.8
6m	f	pallor, Fever	+			+	200	7.6	29	95	12.6	4.7	46	90	13.6	9	76	0	95	0	B	L2	4	0.6	63	49	14	2079	13.3	10.2	2
2	m	pallor, Fever, purpura	+	+	+	+	53	4.8	19	96	5	12.5	27	86	9.3	12.1	150	0	90	0	B	L2	5	0.3	61	33	2.3	508	6.6	5.6	1.9
10	m	pallor, Pupura, Lymph, bone ache	+	+	+	+	51	3.5	19	60	20	5	39	53					83		Pre B	L1	19	1.4	69	35	5	956	7.3	6	death
2	f	pallor, fever	+				81.2	5	45	90	4.6	4.3	37	88	7.6	10.5	100	0	96		Pre B	L2	6	0.33	19	15	2.4	944	6.4	4	2
13	m	Fever, Bone, ache, lymphad	+	+	+		80	9.2	50	78	9.2	8.2	80	72	10.6	9.3	98	0	85	0	T	L2	6	0.9	23	40	1.3	953	8.8	7.9	2.3
14	f	pallor, Bone ache	+	+			57	2.8	35	95	6.2	8	37	62	7.9	10.2	131	0	95	0	T	L2	7	0.7	33	34	18.9	535	6.8	5.3	2.6
25	f	pallor, purpura			+	+	7	6.6	20	50	5	9	20	89	8.3	11.4	136	0	97	0	Pre B	L2	7	1.4	24	19	4.2	461	2.9	2.2	2.1
6	m	pallor, purpura			+	+	24	4.2	19	80	3.5	5	25	84	6.7	12.5	151	0	88	0	early pre B	L1	8	0.42	34	25	2.6	494	4.3	3.9	2.6
3	m	pallor, Fever, lymphad	+	+	+		23	5.7	62	80	12	6	50	56	10	9.5	150	0	25	0	B	L3	9	0.66	44	29	3.3	563	2.9	2	1.5
3	m	pallor, pup.bleeding gums				+	27.6	5.2	21.6	39	3.3	11.3	37	33	3.9	10	155	0	70	0	early pre B	L2	12	0.35	26	35	5.6	709	5.6	4.3	1.9
9	f	pallor, Fever, lymphad	+	+	+		247	4.3	70	97	104	10	70	88	66.1	7.9	66	14	97	20	T	L2	25	3	29	14	3.6	4603	13.6	13.2	12.7
3	f	Fever, Echymosis, bleeding gums	+				20.4	10.6	35	91	6.2	7	60	59	7.9	9.9	160	0	85	0	Pre B	L1	24	2.7	401	233	5.7	555	4.5	4.5	2.1
7	f	pallor, Bone ache, Lymphad		+	+		6	5.9	51	92	4.3	9.5	60	85	6.3	8.6	106	0	90	2	Pre B	L2	5	1.2	28	35	4	333	2.5	2	1.4
5	m	pallor, Fatigue		+			9	8.1	39	80	3.1	7	36	78	9.3	9.5	110	0	93	0	early pre B	L2	5	0.33	44	43	5.2	501	3.5	3.1	2.1
4	f	pallor, Fever, purpura	+	+	+	+	29	7.3	19	76	5.8	7.5	30	69	7.5	11.3	150	0	91	0	Pre B	L2	3	0.12	70	50	3.6	680	4.6	3.9	1.3
4	m	pallor, Fatigue	+	+			29	8.5	50	80	6.2	10.5	61	54	9.9	8.9	163	0	93	0	Pre B	L2	9	0.7	341	400	3.2	800	5.2	3.9	2.2
8	m	pallor, Fever	+	+	+		27	4.3	82	90	4.8	7.6	80	89	9	9	168	0	95	0	early pre B	L2	4	0.8	43	47	4.1	309	3.9	5.3	2.3
3	m	pallor, Lymphad, Abd. Enlarg	+	+	+		6	6.9	63	58	3.3	8.9	50	55	5.8	12.2	193	0	97	0	Pre B	L2	7	0.2	20	45	3	503	2.4	2	2.6
1	f	Fever, Purpura	+			+	51	9	23	80	9.3	11	33	82	4.4	11.5	180	0	93	3	T	L2	6	0.4	301	218	4	4000	9.5	7.3	1.3
5	m	Fever, Lymphadenopathy	+	+	+		450	10.6	30	80	13.2	12	35	73	6.7	10.6	110	0	79	0	T	L2	7	0.6	29	33	14	5333	13.9	13	2.6
9	f	pallor, Bone ache	+	+	+		46.5	4.9	103	70	8.6	9.1	80	85	5.6	10.2	115	0	80	0	early Pre B	L2	17	0.13	30	29	3.3	4000	7.2	6.5	1.2
35	m	Pallor, Fever	+	+	+		160	8.2	47	80	8.5	9	50	69	7.7	9.6	120	0	46	0	T	L2	13	0.81	61	41	7.9	8920	13.3	12.5	1.8
12	m	Fever, Lymphadenopathy	+		+		118.5	7	80	90	97.6	5.9	74	86	49	6.7	69	16	69	27	Pre B	L2	9	0.9	231	321	10	8584	13.9	13.3	13.2
5	m	pallor, Fever, purpura	+	+	+	+	6.6	10.1	20	90	5.4	8.5	44	82	13.5	12	103	0	83	0	Pre B	L2	11	0.7	70	50	6	800	5.5	5.1	2
10	f	lymphad, Abd. Enlarg	+	+	+		51	9	46	70	2.3	8.5	40	65	12.7	11.5	130	0	70	0	Pre B	L2	5	0.4	35	34	5	1088	7	4.3	2.3
4	m	Pallor, Fever, Abd. Enlarg	+	+	+		6	6	101	76	5.3	10	80	70	7.3	10.1	99	0	90	0	Pre B	L2	7	0.3	33	27	6	410	9	8.4	1.8
11	m	Pallor, Bone ache		+	+		52	8.6	99	86	9.5	7.6	40	79	8.7	9.8	123	0	92	0	Pre B	L1	8	0.6	18	19	7	7863	10.6	8.2	1
3	m	pallor, Fever, lymphad	+	+	+	+	100	7.9	20	80	14.9	7.1	32	70	7.5	8.1	150	0	83	4	Pre B	L2	11	0.9	159	209	3.1	9965	14	11	1.9

Table(26) clinical and laboratory data in control

No.	Age	Sex	Laboratory Investigation										
			Periph. Blood Exam.			Kidney function		Liver function					
			Hb g/dl	TLC /cmm3	Plat /cmm3	urea	creat	ALT	AST	uric acid	LDH	Cras ng/dl
1	2	m	12	4.8	150	3	0.4	23	19	2	411	2
2	1.5	m	11.5	5.2	190	5	0.7	36	30	2.3	507	1.5
3	5	m	13	6.7	200	6	1	29	15	4.5	390	2.1
4	3	f	12.5	7.2	167	4	0.9	36	23	2.3	606	1
5	6m	m	10	8.5	243	6	0.6	30	24	3.1	593	1.9
6	4	f	12	5.7	213	3	0.5	40	33	4.3	411	1.6
7	9m	f	10	6.1	193	5	0.7	30	29	2.5	484	2.1
8	7	f	13	7.3	187	6	0.6	35	31	2	395	1.3
9	9	f	11.5	4.5	196	4	0.4	33	29	3.1	550	1.2
10	1	f	11	5.7	211	7	0.4	30	23	3.2	92	1.5