
RESULTS

Table 2 and Figures 3 and 4 shows the age and sex of 40 children suffering from asthma and 20 of healthy children.

The mean value was 6 ± 1.6 years in control group and 5.3 ± 1.6 in patients' group as regard age.

Table (2): Age and sex distribution among the studied groups.

	Control group	Patients group
Age		
Min.	4	3
Max.	8	9
Mean	6	5.3
S.D.	1.6	1.6
T	1.32	
P	>0.05 N.S.	
Sex		
<i>Male</i>		
No.	5	19
%	50.0	47.5
<i>Female</i>		
No.	5	21
%	50.0	52.5
X ²	0.74	
P	>0.05 N.S.	

There is no significant difference between the two studied groups as regard to age and sex.

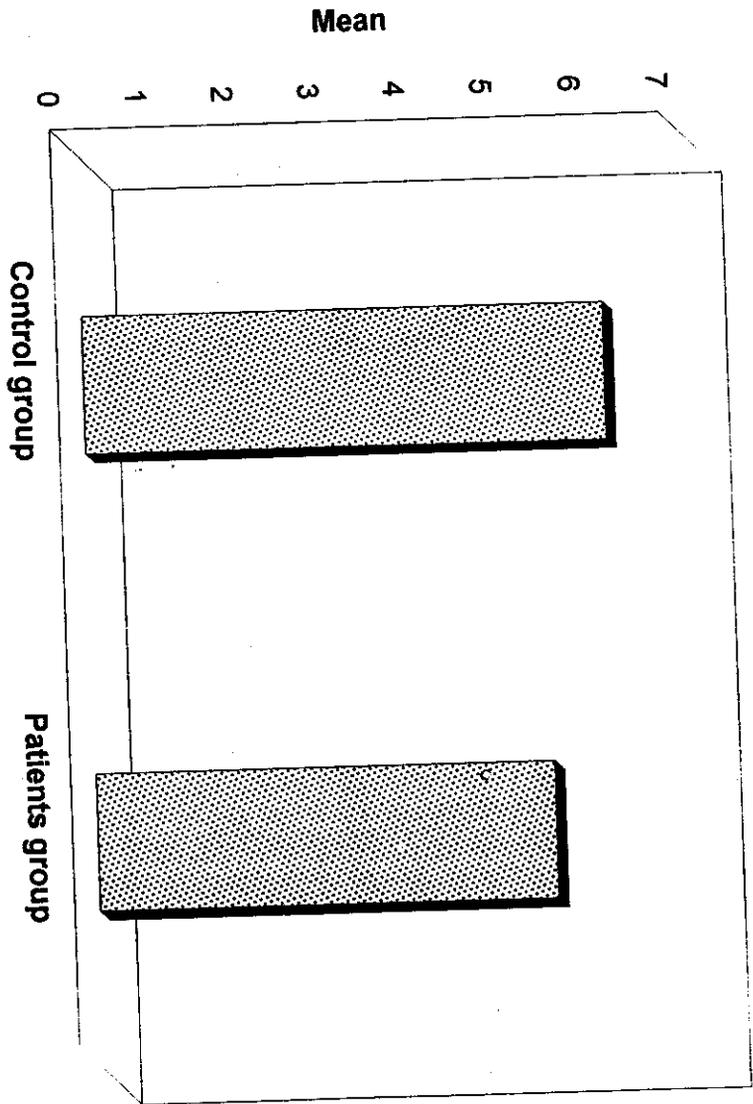


Fig. (3): Age distribution among the studied groups.

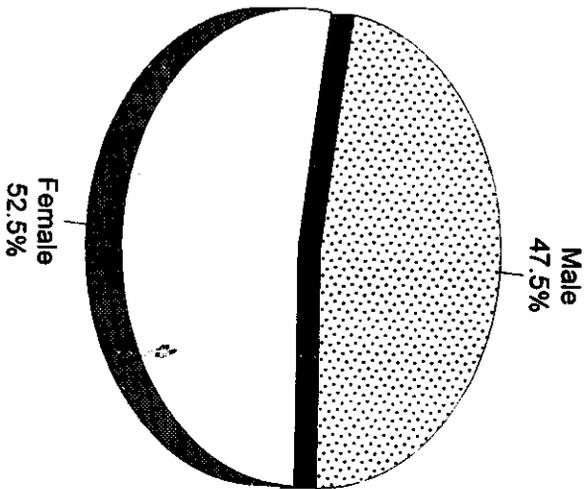
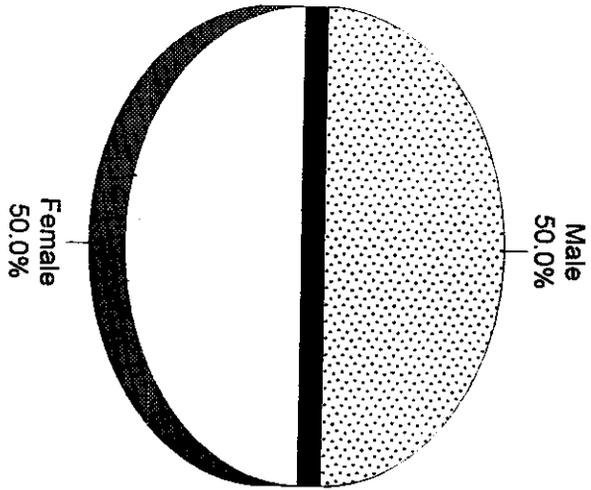


Fig. (4): Sex distribution among the studied groups.

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Tables 3 and 4 and Figure 5 shows a comparison of the level of peak expiratory flowmeter PEF (L/m) between the asthmatic children before and after treatment and control children. The mean values were 113.75 ± 21.8 in patient before treatment and 124.5 ± 26.9 after treatment and was 127 ± 28.7 among the control group. These data showed significant difference between control group and patients group before and after treatment and significant before and after treatment.

Table (3): Comparison between the level of PEFr (L/m) in control group and in patients group before and after treatment.

	Control group	Patients group	
		Before treatment	After treatment
Min.	100	100	100
Max.	170	160	180
Mean	127	113.75	124.5
S.D.	28.7	21.8	26.9
t1		1.99	1.01
p1		<0.05*	>0.05 N.S.

* Significant difference

N.S not significant

Table (4): Comparison between the level of PEFR (Lm) before and after treatment in patients.

	Patients group	
	Before treatment	After treatment
Min.	100	100
Max.	160	180
Mean	113.75	124.5
S.D.	21.8	26.9
T	2.32	
P	<0.05*	

* Significant difference

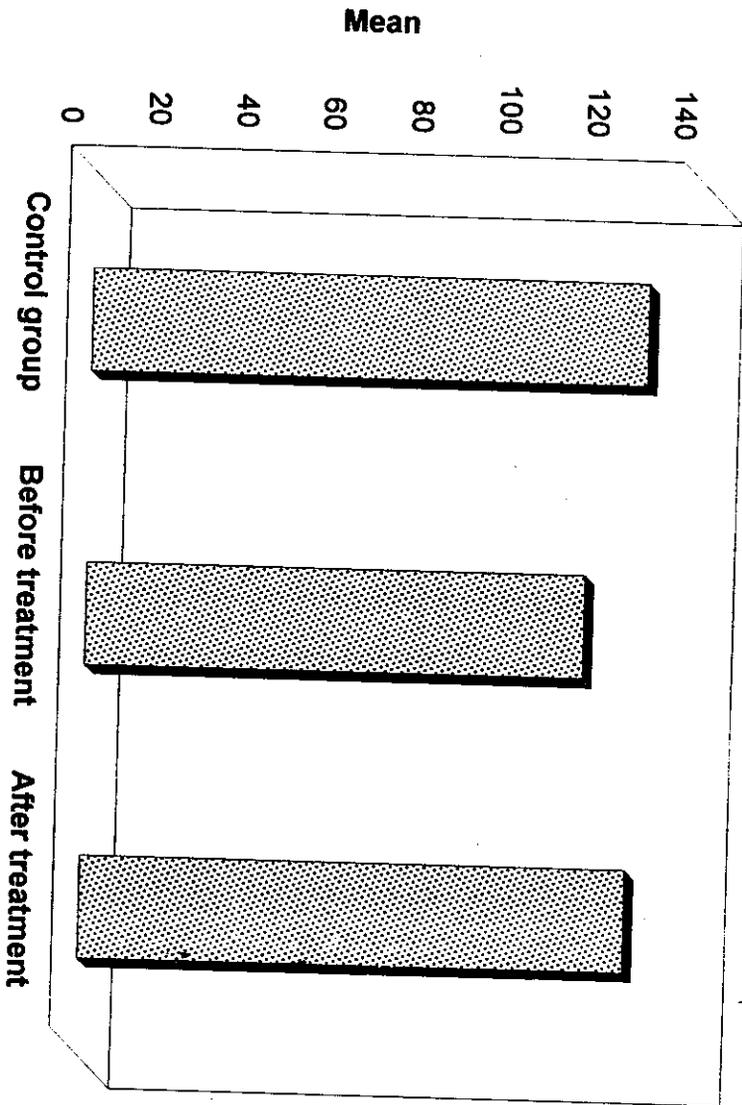


Fig. (5): Comparison between the level of PEFr (Lm) in control group and in patients group before and after treatment.

Table 5 and Figure 6 comparing the level of IgE in asthmatic patient and normal control children (IU/ml).

The data show that the mean was 204.3 ± 38.21 in control group and 603.1 ± 266.15 before treatment and 496.65 ± 217.34 after treatment. These data showed highly significant difference between control and patients before treatment and significant difference between control and after treatment.

Table (5): Comparison between the level of IgE (IU/ml) in control group and in patients group before and after treatment.

	Control group	Patients group	
		Before treatment	After treatment
Min.	160	211	200
Max.	270	1223	1211
Mean	204.3	603.10	496.65
S.D.	38.21	266.15	217.34
T		5.69	4.01
P		<0.01**	<0.05*

* Significant difference

** Highly significant

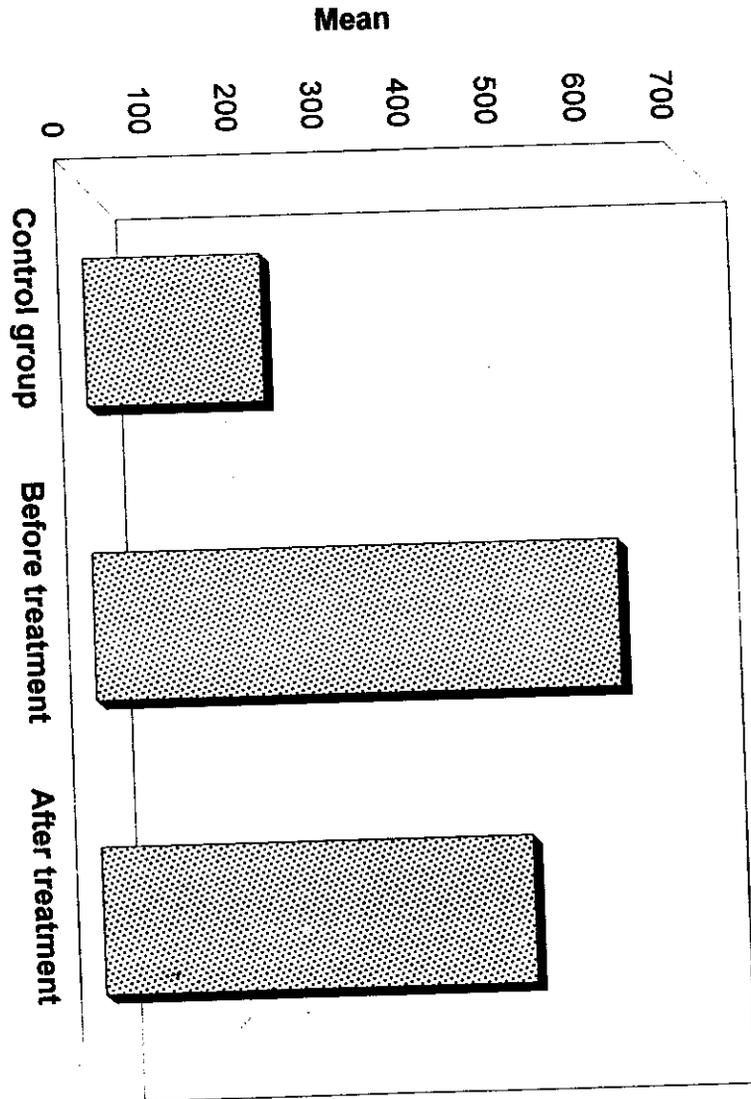


Fig. (6): Comparison between the level of IgE in control group and in patients group before and after treatment.

On comparing the level of eosinophil cell/mm³ in control and patients group (Tables 6 and 7 and Figure 7).

The mean of the data was 245.5 ± 4.4 among control and 270.4 ± 15.3 in asthmatic children before treatment and 261 ± 13.7 after treatment there was significant difference between control and patient group before treatment.

Also there was significant difference in patient group before and after treatment.

Table (6): Comparison between the level of eosinophil cell /mm³ in control group and in patients group before and after treatment.

	Control group	Patients group	
		Before treatment	After treatment
Min.	240	230	240
Max.	250	310	300
Mean	245.5	270.4	261
S.D.	4.4	15.3	13.7
T		1.92	1.73
P		<0.05*	>0.05 N.S.

* Significant difference

N.S not significant

Table (7): Comparison between the level of eosinophil before and after treatment in patients.

	Patients group	
	Before treatment	After treatment
Min.	230	240
Max.	310	300
Mean	270.4	261
S.D.	15.3	13.7
T	4.65	
P	<0.01*	

* Significant difference

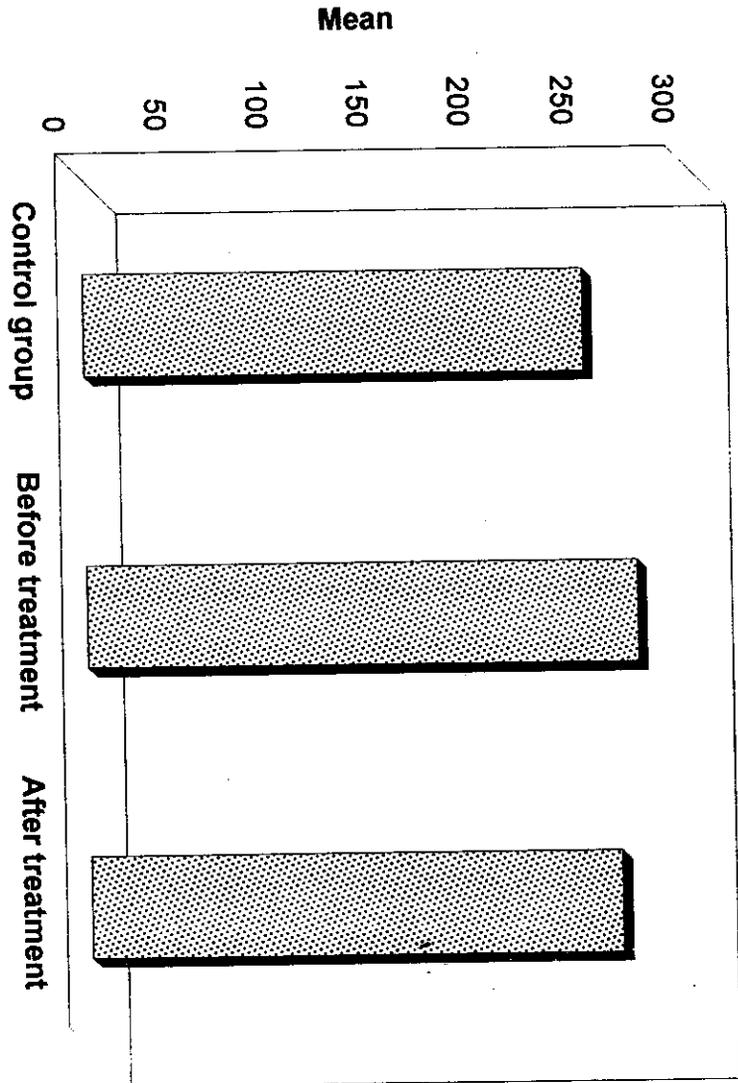


Fig. (7): Comparison between the level of eosinophil cell/mm³ in control group and in patients group before and after treatment.

Tables 8, 9 and Figure 8 show the data obtained from healthy control and asthmatic children as regard the eosinophil cationic protein ECP ($\mu\text{g/L}$). The mean among healthy was 7.31 ± 0.75 and of patients before treatment 15.3 ± 1.8 and after treatment 8.69 ± 1.41 . There was high significance difference as regard the comparison of control and patient before treatment and significant difference as regard before and after treatment.

Table (8): Comparison between the level of ECP in control group and in patients group before and after treatment.

	Control group	Patients group	
		Before treatment	After treatment
Min.	6.5	10.5	6
Max.	8.8	18.8	12.2
Mean	7.31	15.31	8.69
S.D.	0.75491	1.80	1.41
T		5.65	1.95
P		<0.01**	<0.05*

* Significant difference

** Highly significant

Table (9): Comparison between the level of ECP ($\mu\text{g/L}$) before and after treatment in patients.

	Patients group	
	Before treatment	After treatment
Min.	10.5	6
Max.	18.8	12.2
Mean	15.31	8.69
S.D.	1.80	1.41
T	4.25	
P	<0.05*	

* Significant difference

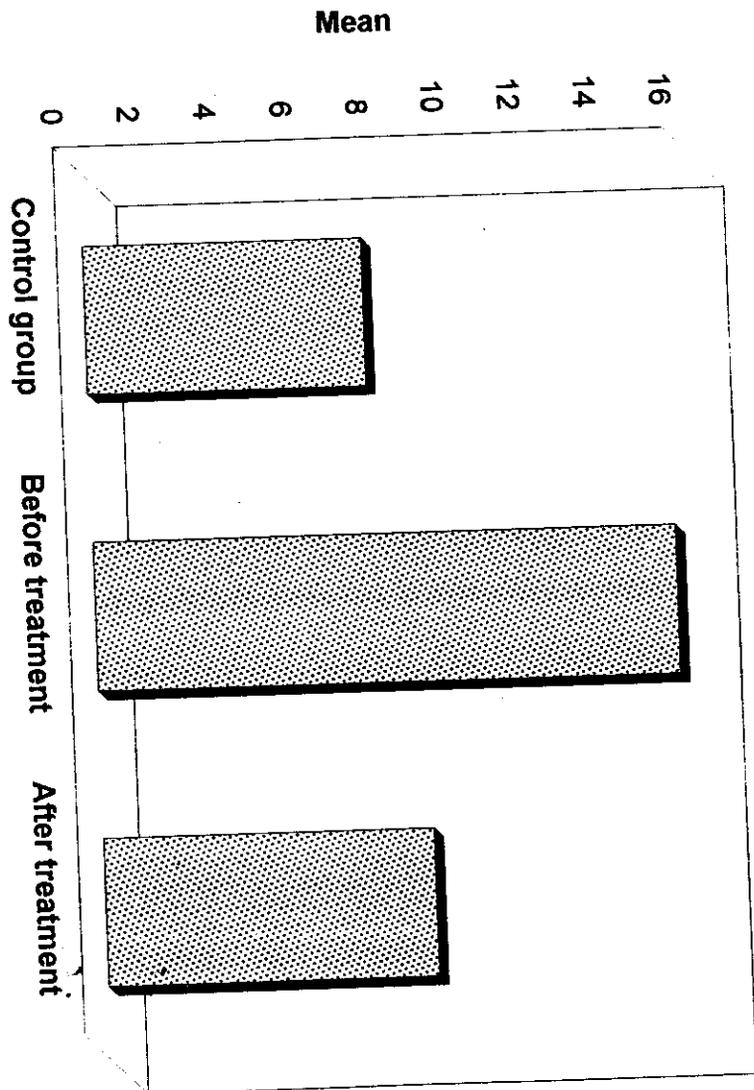


Fig. (8) : Comparison between the level of ECP in control group and in patients group before and after treatment.

On comparing between the level of IL-1 in (Pg/L) in control group and in patients group before and after treatment as in tables 10, 11 and 12 and figure 9.

There was highly significant difference in comparison between control and patient group and significant difference between patient before and after treatment the mean among control was 60 ± 10.8 and in patient before treatment was 243.25 ± 71.6 and after treatment was 117.1 ± 13 .

Table (10): Comparison between the level of IL-1 (Pg/L) in control group and in patients group before and after treatment.

	Control group	Patients group	
		Before treatment	After treatment
Min.	45	180	98
Max.	80	620	142
Mean	60.0	243.25	117.1
S.D.	10.8	71.6	13.0
T		21.6	6.5
P		<0.001**	<0.05*

* Significant difference

** Highly significant

Table (11): Relation between IL-1 before treatment and other measured parameters.

	Correlation coefficient	p
C3 before	-0.103	>0.05
C3 after	-0.071	>0.05
Eosinophil before	-0.397	0.04*
Eosinophil after	-0.099	>0.05
PEFR before	-0.130	>0.05
PEFR after	-0.138	>0.05
ECP before	0.158	>0.05
ECP after	0.139	>0.05
IgE before	-0.119	>0.05

Table (12): Relation between IL-1 after treatment and other measured parameters.

	Correlation coefficient	p
C3 before	0.010	>0.05
C3 after	0.097	>0.05
Eosinophil before	-0.201	>0.05
Eosinophil after	0.245	>0.05
PEFR before	-0.026	>0.05
PEFR after	0.018	>0.05
ECP before	0.016	>0.05
ECP after	-0.076	>0.05
IgE before	0.090	>0.05

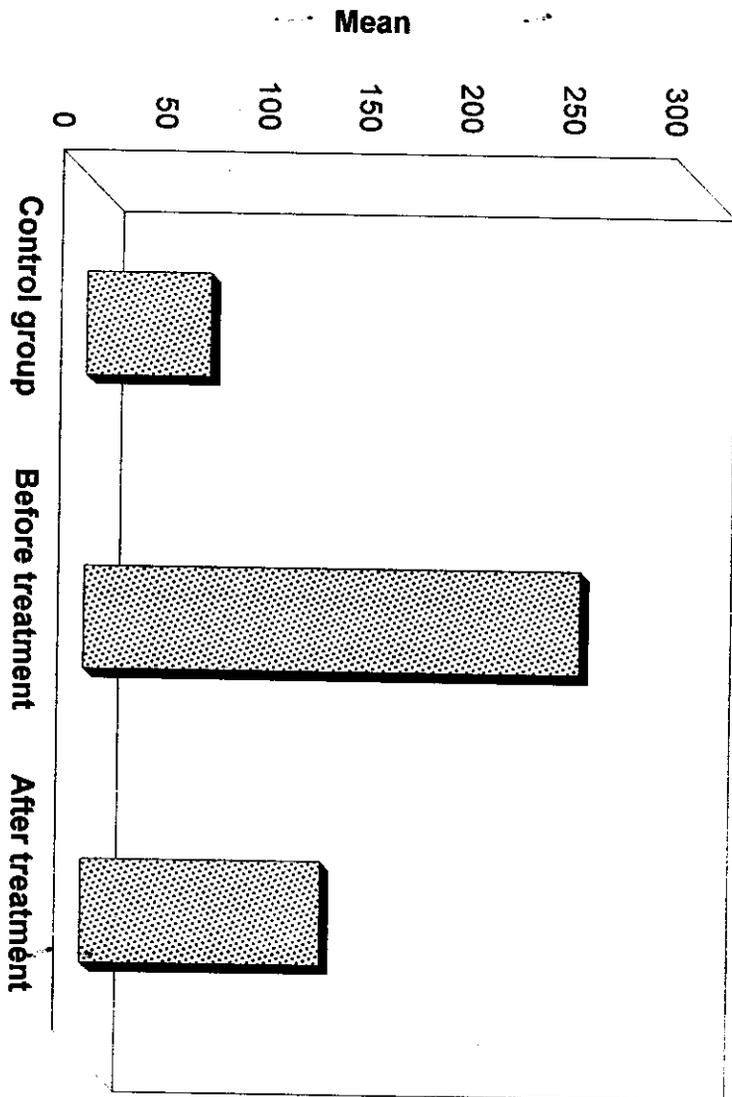


Fig. (9): Comparison between the level of IL-1 in control group and in patients group before and after treatment.

On comparing the level of C3 (complement 3) in (mg/dl) in control group and in patients group as shown in tables 13, 14, 15 and 16 and figure 10.

The mean among control were 104.6 ± 63 and patients before treatment 193.4 ± 14.5 and after treatment 114.8 ± 7.7 .

There was significant difference between control and patient before treatment and significant difference between before and after treatment.

Table (13): Comparison between the level of C3 (mg/dL) in control group and in patients group before and after treatment.

	Control group	Patients group	
		Before treatment	After treatment
Min.	98	150	100
Max.	120	220	125
Mean	104.6	193.4	114.8
S.D.	6.3	14.5	7.7
T		4.65	1.02
P		<0.01*	>0.05 N.S.

* Significant difference

N.S not significant

Table (14): Comparison between the level of C3 in before and after treatment in patients.

	Patients group	
	Before treatment	After treatment
Min.	150	100
Max.	220	125
Mean	193.4	114.8
S.D.	14.5	7.7
T	4.21	
P	<0.01*	

* Significant difference

Table (15): Relation between C3 before treatment and other measured parameters.

	Correlation coefficient	p
Eosinophil before	-0.357	0.03*
Eosinophil after	0.097	>0.05
PEFR before	0.009	>0.05
PEFR after	0.063	>0.05
ECP before	0.006	>0.05
ECP after	0.047	>0.05
IgE before	0.087	>0.05

Table (16): Relation between C3 after treatment and other measured parameters.

	Correlation coefficient	p
C3 after	0.175	>0.05
Eosinophil before	0.128	>0.05
Eosinophil after	0.080	>0.05
PEFR before	0.154	>0.05
PEFR after	0.103	>0.05
ECP before	0.051	>0.05
ECP after	-0.133	>0.05
IgE before	0.302	0.03*

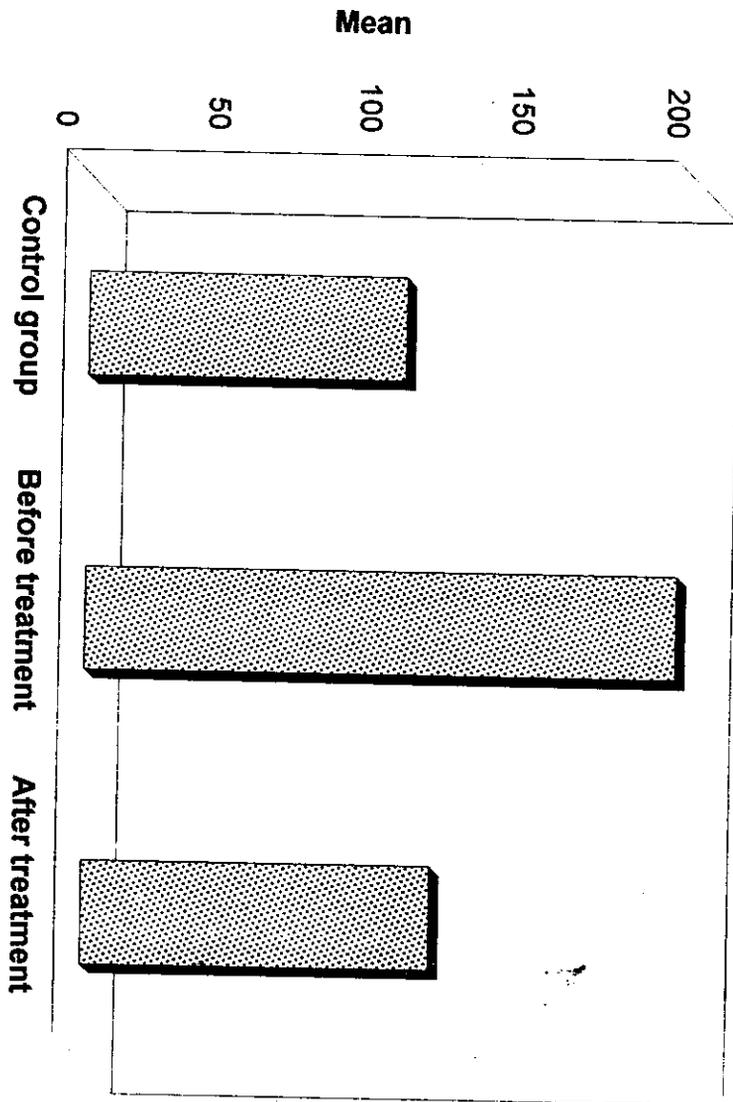


Fig. (10): Comparison between the level of C3 in control group and in patients group before and after treatment.

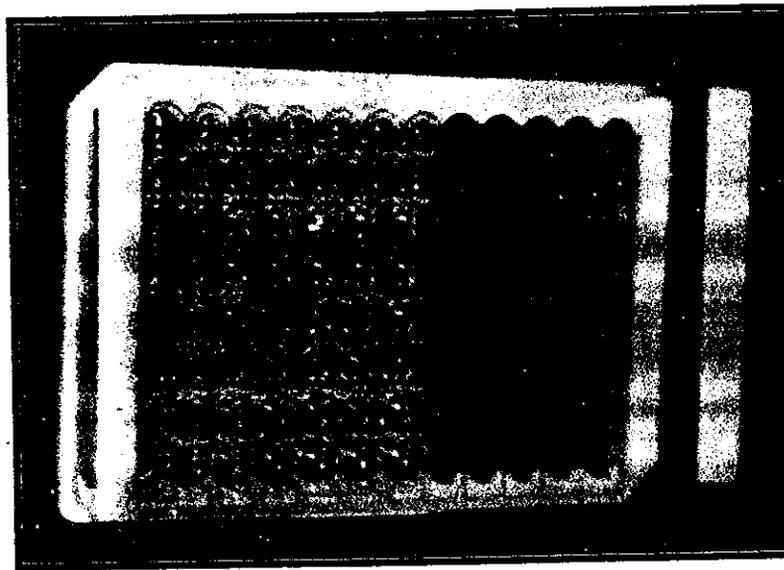


Fig. (11): Quantitative measurement of ILI by ELISA method