

RESULTS OF CLINICAL STUDY

TABLE (1) :

- The age of our patients ranged between 35 and 60 years with a mean age of 45.63 ± 7.57 years .
- The duration of the disease ranged from 2 to 16 years with a mean duration of 7.4 ± 3.61 years .
- The duration of morning stiffness ranged between 45 to 120 minutes with a mean value of 67.5 ± 23.04 minutes .
- Grip strength ranged between 25 to 85 mmHg with a mean value of 53.93 ± 16.19 .
- All of our patients had signs of synovitis in 6 joints or more in the form of varying degrees of effusions and tenderness .
- The degree of tenderness of a series of joints were assessed and the results were then calculated to get the final score which is the articular index for the patient .
- The number of painful joints ranged between 8 to 16 joints with a mean value of 11.23 ± 2.09
- The number of swollen joints ranged between 4 to 10 joints with

a mean value of 6.43 ± 1.53

- Articular index ranged between 26 to 42 with a mean value of 32.68 ± 4.74

TABLE (2) :

As regards the functional capacity in our patients were classified into 4 grades according to steinbroker et al.. (1949) 3 patients were grade I. 29 patients were grade II. 8 patients were, grade III and none was grade IV .

TABLE (I) :

Showing some clinical data in our patients expressed as
(range and mean $\pm$ SD) .

	Age /years	Disease duration /years	Morning stiffness /minutes	Grip strength mmHg	Articular index	No.of panif ul joints	No.of swollen joints
Range	35 - 60	2 - 16	45 - 120	25 - 85	26 - 42	8 - 16	4 - 10
Mean	45.63	7.4	67.5	53.93	32.68	11.23	6.43
SD	7.57	3.61	23.04	16.19	4.74	2.09	1.23

TABLE (2) :

Showing grades of functional capacity in our rheumatoid
arthritis patients .

Grades of functional capacity	No. of patients	percentage
Grade I	3	7.5 %
Grade II	29	72.5 %
Grade III	8	20.0 %
Grade IV	0	0

RESULTS OF LABORATORY VARIABLES

40 rheumatoid patients were subjected to the following laboratory investigations :-

- 1 - Erythrocyte sedimentation rate
- 2 - Haemoglobin concentration
- 3 - Total leucocytic count
- 4 - C - reactive protein
- 5 - Latex rheumatoid factor
- 6 - Synovial fluid analysis include the following :-
 - Glucose level
 - Latex - rheumatoid factor
 - Total leucocytic count
 - Polymorphs count

TABLE (3) :

Erythrocyte sedimentation rate in our patients ranged between 35 to 82 mm / hour with a mean value of 50.38 ± 10.15 mm .

Haemoglobin concentration in our patients ranged between 8.9 to 13 gm % with a mean value of 10.15 ± 0.63 gm % .

Total leucocytic count in our patients ranged between 4000 to 10000 / mm^3 with a mean value of 6043 ± 1329.52 / mm^3 .

C - reactive protein in our patients ranged between 3.3 to 7 mg / dL with a mean value of 5.19 ± 1.13 mg / dL .

Rheumatoid factor titre in our patients ranged between 0 to 160 with a mean value of 112 ± 47.24

- There 4 patients (10%) were seronegative and 36 patients (90%) were seropositive .

TABLE (4) :

- Glucose level in the synovial fluid ranged between 50 to 104 mg % with a mean value of 65.33 ± 13.05
- Rheumatoid factor titre in the synovial fluid ranged between 0 to 160 with a mean value of 105 ± 45.91
- Total leucocytic count in the synovial fluid of our patients ranged between 5000 to 10500 / mm^3 with a mean value of 6908 ± 1559.98
- Polymorphs count in the synovial fluid of our patients ranged between 2800 to 8800 / mm^3 with a mean value of 5353 ± 1615.3

TABLE (5) :

The control group was subjected to the following laboratory investigations :-

- Erythrocyte sedimentation rate
- Haemoglobin concentration
- Total leucocytic count
- C - reactive protein
- Latex - rheumatoid factor titre

The control group showed the following results :-

- Erythrocyte sedimentation rate in control group ranged between 15 to 30 mm with a mean value of 19.1 ± 4.7
- Haemoglobin concentration in control group ranged between 11.2 to 13.3 gm % with a mean value of 12.23 ± 0.77
- Total leucocytic count in control group ranged between 5200 to 8800 / mm^3 with a mean value of 6410 ± 1171.37
- C - reactive protein in control group ranged between 0.65 to 0.9 mg / dl with a mean value of 0.75 ± 0.09
- Rheumatoid factor in all control group was negative .

TABLE (3) :

Showing results of blood investigation in rheumatoid arthritis patients expressed as (range and mean $\pm$ SD)

	ESR mm	Hb gm%	Tlc /mm ³	CRP mg/dL	RF IU/ml
Range	35 - 82	8.9 - 13	4000 - 10000	3.3 - 7.0	0 - 160
Mean	50.38	10.15	6043	5.19	112
SD	10.15	0.63	1329.52	1.13	47.24

ESR= Erythrocyte sedimentation rate
Hb = Haemoglobin concentration
TLC = Total leucocytic count
CRP = C - reactive protin
RF = Rheumatoid factor

TABLE (4) :

Showing results of synovial fluid analysis in rheumatoid arthritis patients expressed as (range and mean $\pm$ SD)

	Glucose g /%	Rf iu/ml	Tlc /mm ³	Polymorphs /mm ³
Range	50 - 104	0 - 160	5000 - 10500	2800 - 8800
Mean	65.33	105	6908	5353
SD	13.05	45.91	1559.98	1615.31

TABLE (5) :

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Showing results of blood investigation in control group
expressed as (range and mean $\pm$ SD)

	ESR mm	Hb gm%	TLC /mm ³	CRP mg/dl	RF IU/ml
Range	15 - 30	11.2 - 13.3	5200 - 8800	0.65 - 0.9	0
Mean	19.1	12.23	6410	0.75	0
SD	4.70	0.77	1171.37	0.09	0

TABLE (6) :

Showing a comparison of laboratory investigations between
rheumatoid arthritis group and the control group
expressed as (range and mean $\pm$ SD)

		ESR mm	Hb gm %	TLC /mm ³	CRP mg/dl	RF IU/ml
rheumatoid arthritis group	Range	35 - 82	8.9 - 13	4000 - 10000	3.3 - 7.0	80 - 160
	Mean	50.38	10.15	6042.5	5.19	112
	SD	10.15	0.63	1329.5	1.13	47.24
	Range	15 - 30	11.2 - 13.3	5200 - 8800	0.65 - 0.90	0
Control group	Mean	19.1	12.23	6410	0.75	0
	SD	4.70	0.77	1171.37	0.09	0
	P	< 0.05	< 0.05	> 0.05	< 0.05	-----

TABLE (7) :

Showing correlation between ESR and the clinical
Parameters of disease activity.

Clinical parameters of disease activity	r	p
Morning stiffness	0.41	< 0.05
Grip strength	0.32	< 0.05
Articular index	0.59	< 0.05
No. of painful joints	0.63	< 0.05
No. of swollen joints	0.54	< 0.05

r = correlation coefficient

In this table show significant correlation of ESR with the
clinical parameters of disease activity .

Table (8) :

Showing correlation between CRP and the clinical
Parameters of disease activity.

Clinical parameters of disease activity	r	P
Morning stiffness	0.31	< 0.05
Grip strength	0.30	< 0.05
Articular index	0.75	< 0.05
No. of painful joints	0.77	< 0.05
No. of swollen joints	0.58	< 0.05

r = Correlation coefficient

In this table show significant correlation between CRP level
and the clinical parameters of disease activity.

Table (9) :

Showing correlation between Hb concentration and clinical Parameters of disease activity.

Clinical parameters of disease activity	r	P
Morning stiffness	0.11	>0.05
Grip strength	0.03	>0.05
Articular index	0.04	> 0.05
No. of paniful joints	0.03	> 0.05
No. of swollen joints	0.01	> 0.05

r = Correlation coefficient

In this table show insignificant correlation of Hb concentration with the clinical parameters of disease activity.

Table (10) :

Showing correlation between total leucocytic count and the clinical Parameters of disease activity.

Clinical parameters of disease activity	r	P
Morning stiffness	0.09	> 0.05
Grip strength	0.11	> 0.05
Articular index	0.09	> 0.05
No. of paniful joints	0.14	> 0.05
No. of swollen joints	0.03	> 0.05

r = Correlation coefficient

In this table show insignificant correlation of total leucocytic count with the clinical parameters of disease activity.

Table (11) :

Showing correlation between RF titre and the clinical Parameters of disease activity.

Clinical parameters of disease activity	r	P
Morning stiffness	0.11	> 0.05
Grip strength	0.03	> 0.05
Articular index	0.01	> 0.05
No. of painful joints	0.06	> 0.05
No. of swollen joints	0.01	> 0.05

r = Correlation coefficient

In this table show insignificant correlation between RF. titre and the clinical parameters of disease activity.

Table (12) :

Showing correlation between glucose level in the synovial fluid the clinical Parameters of disease activity.

Clinical parameters of disease activity	r	P
Morning stiffness	0.06	> 0.05
Grip strength	0.02	> 0.05
Articular index	0.07	> 0.05
No. of paniful joints	0.10	> 0.05
No. of swollen joints	0.01	> 0.05

r = Correlation coefficient

In this table show insignificant correlation between glucose level in the synovial fluid and the clinical parameters of disease activity.

Table (13) :

Showing correlation between RF. titre in the synovial fluid and the clinical Parameters of disease activity.

Clinical parameters of disease activity	r	P
Morning stiffness	0.02	> 0.05
Grip strength	0.17	> 0.05
Articular index	0.05	> 0.05
No. of painful joints	0.11	> 0.05
No. of swollen joints	0.16	> 0.05

r = Correlation coefficient

In this table show insignificant correlation between RF. titre in the synovial fluid and the clinical parameters of disease activity.

Table (14) :

Showing correlation between total leucocytic count in the synovial fluid and the clinical Parameters of disease activity.

Clinical parameters of disease activity	r	P
Morning stiffness	0.27	< 0.05
Grip strength	0.28	< 0.05
Articular index	0.45	< 0.05
No. of painful joints	0.53	< 0.05
No. of swollen joints	0.39	< 0.05

r = Correlation coefficient

In this table show significant correlation between total leucocytic count in the synovial fluid and the clinical parameters of disease activity.

Table (15) :

Showing correlation between polymorphs count in the synovial fluid and the clinical Parameters of disease activity.

Clinical parameters of disease activity	r	P
Morning stiffness	0.29	< 0.05
Grip strength	0.27	< 0.05
Articular index	0.41	< 0.05
No. of painful joints	0.48	< 0.05
No. of swollen joints	0.35	< 0.05

r = Correlation coefficient

In this table show significant correlation between polymorphs count in the synovial fluid and the clinical parameters of disease activity.

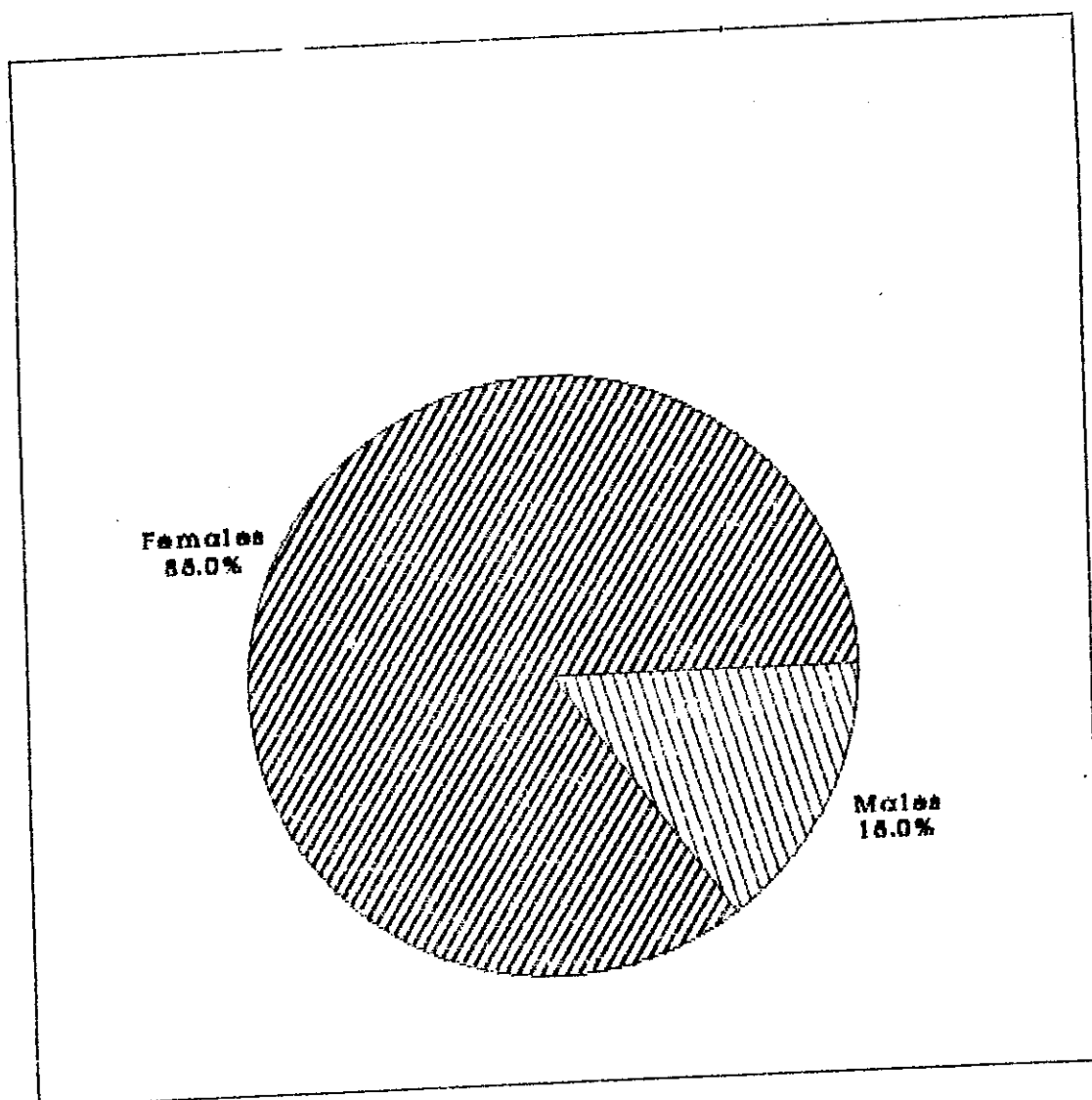


FIGURE (1) DISTRIBUTION OF RHEUMATOID CASES
ACCORDING TO SEX.

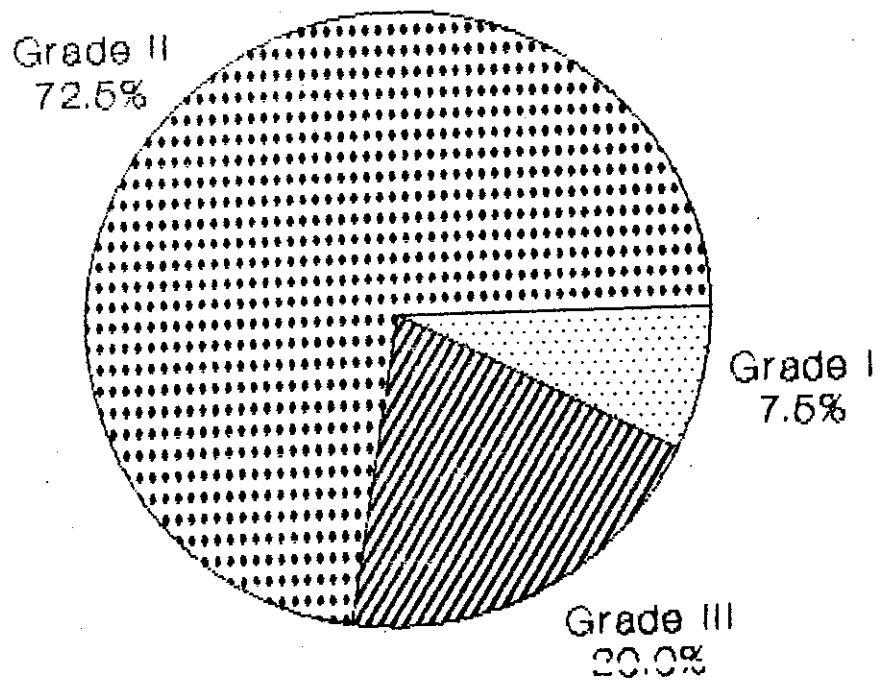


FIGURE (2) DISTRIBUTION OF RHEUMATOID CASES
ACCORDING TO FUNCTIONAL CAPACITY.

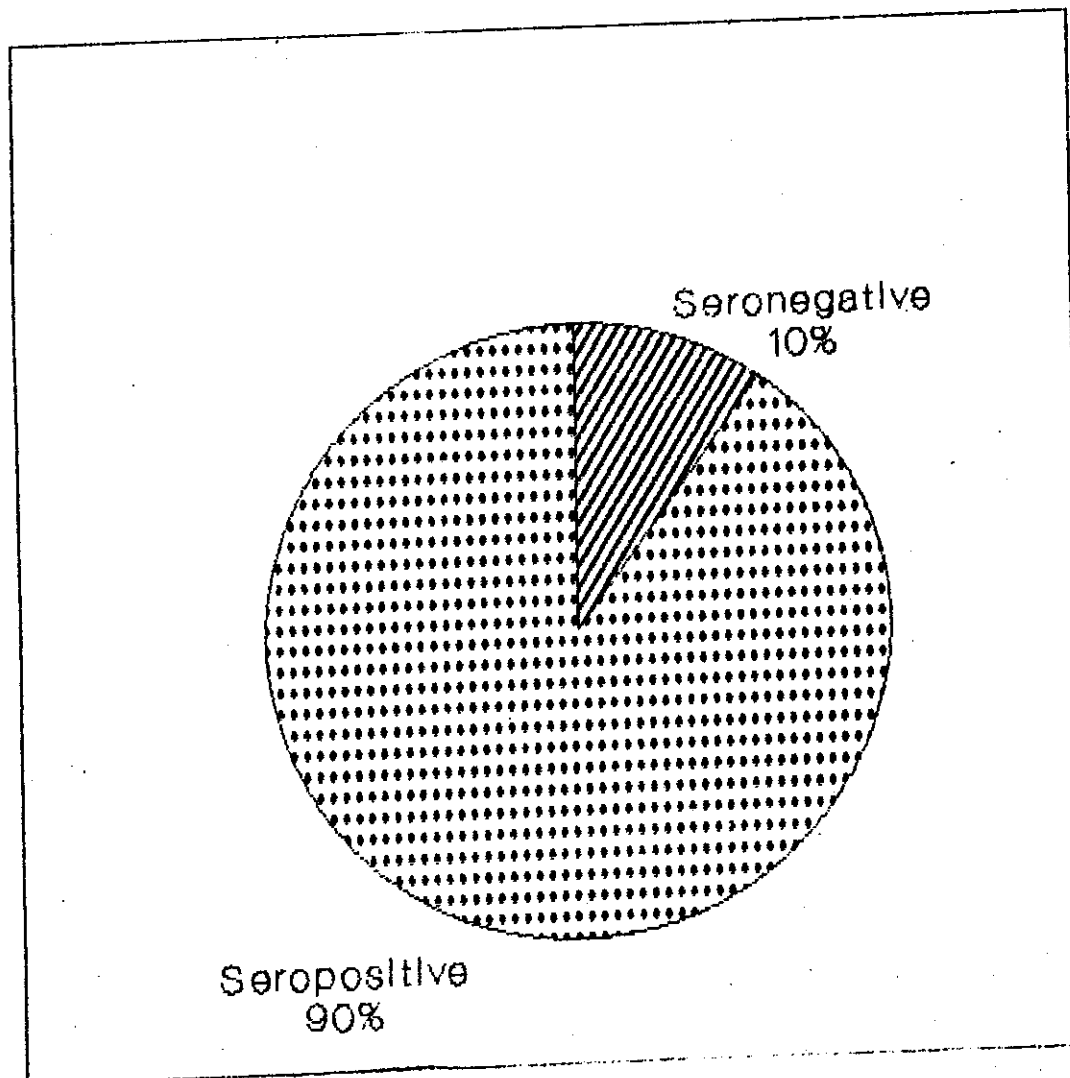


FIGURE (3) DISTRIBUTION OF RHEUMATOID CASES
ACCORDING TO PRESENCE OR ABSENCE
OF RHEUMATOID FACTOR .

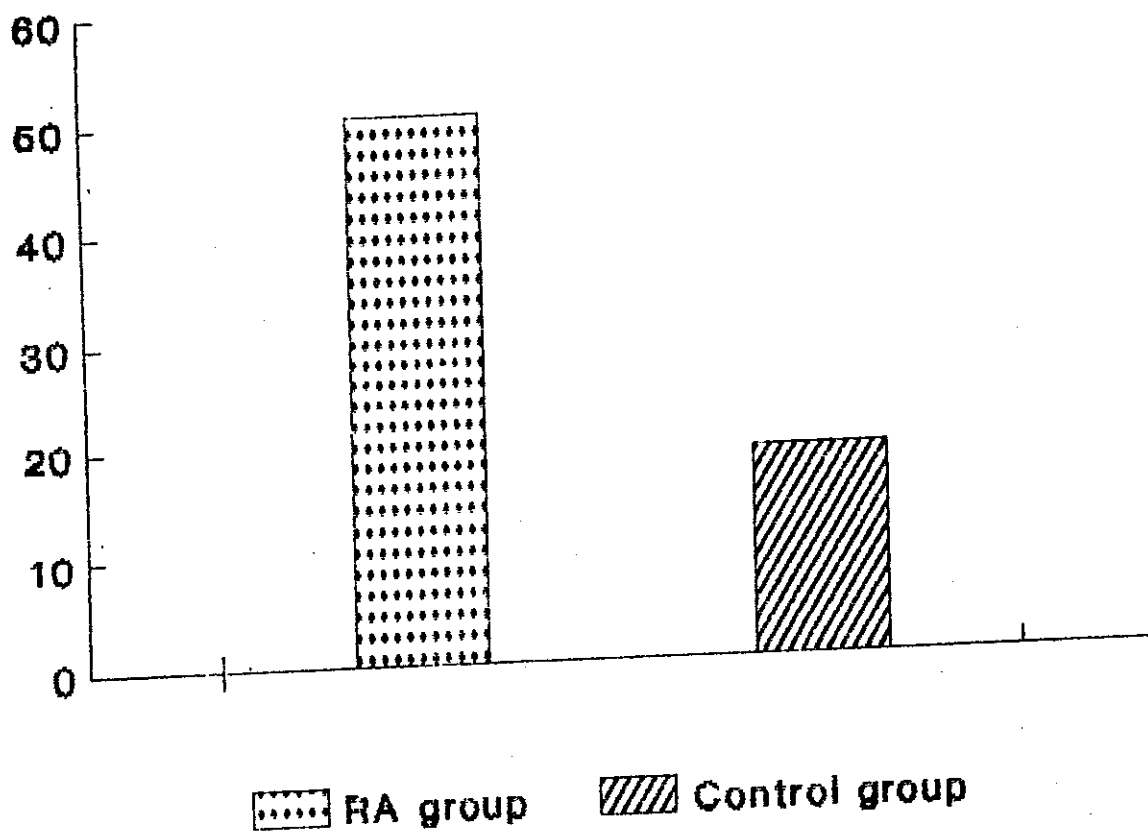


FIGURE (4) RHEUMATOID PATIENTS VERSUS CONTROL
GROUP IN RELATION TO ESR.
(significant difference $p < 0.05$)

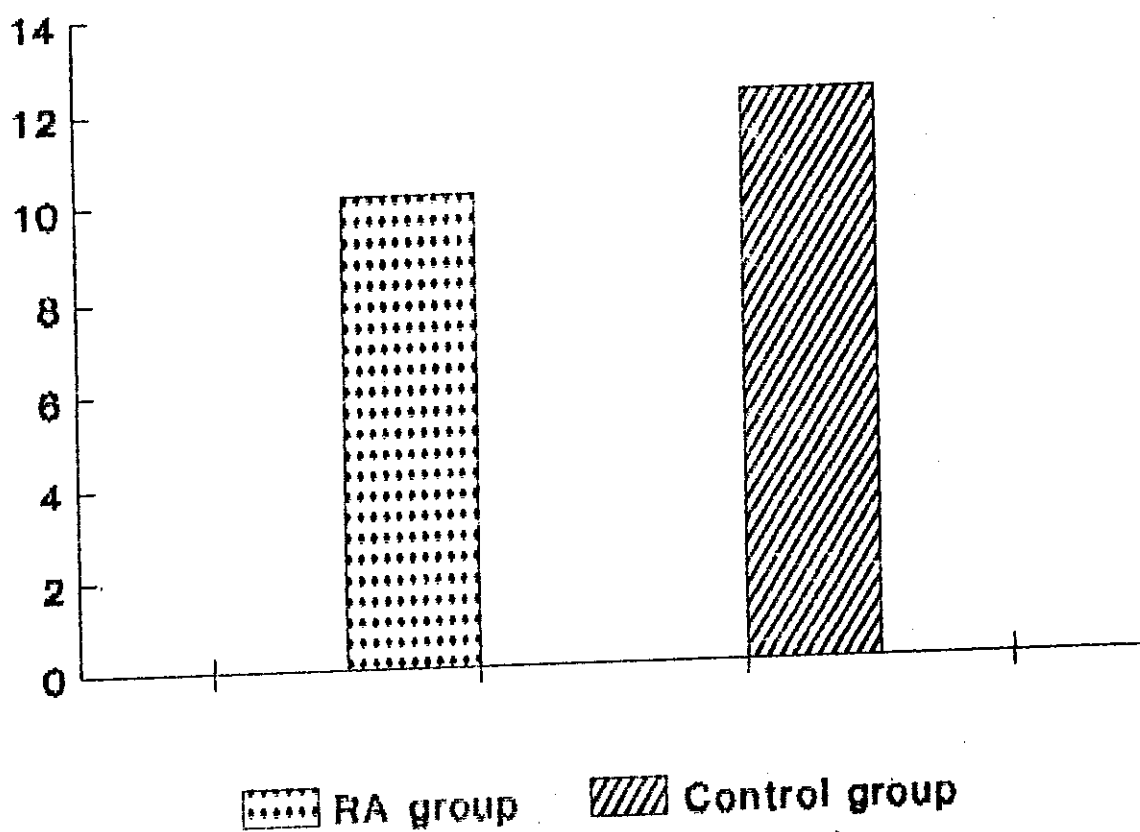


FIGURE (5) RHEUMATOID PATIENTS VERSUS CONTROL
GROUP IN RELATION TO Hb.
(significant difference $p < 0.05$)

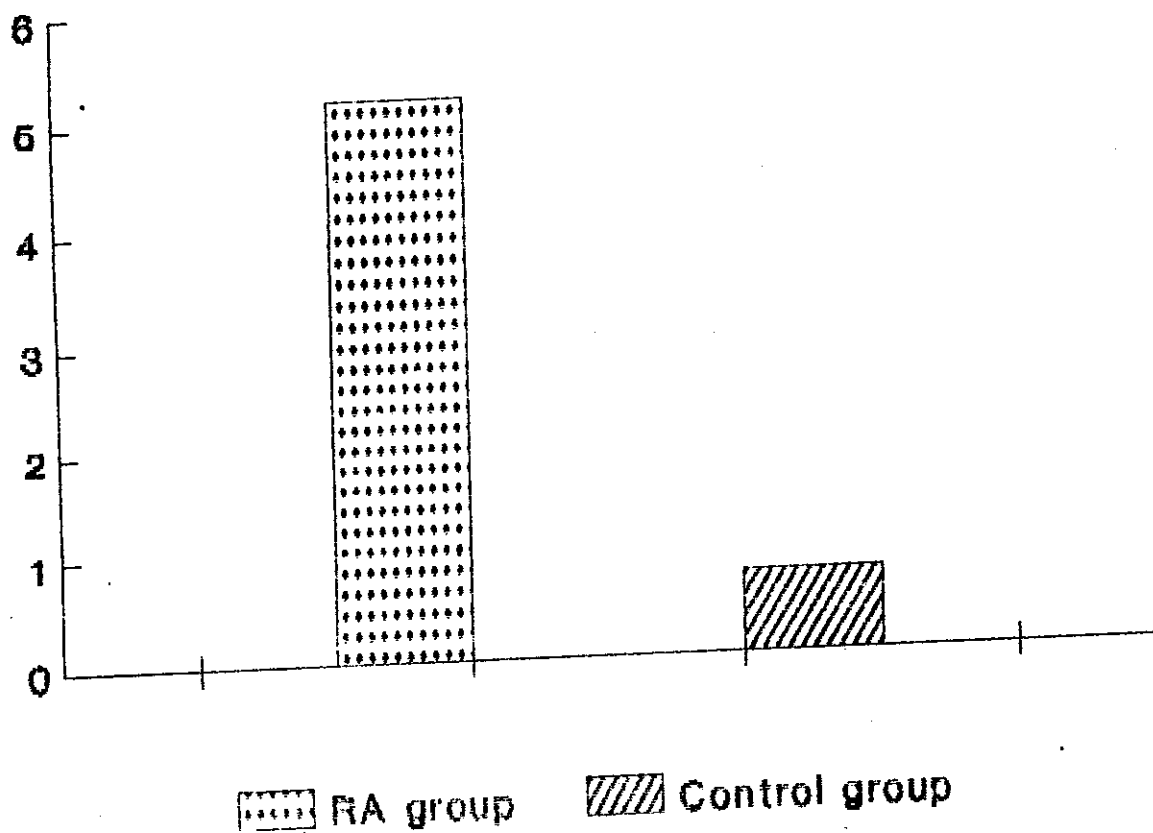


FIGURE (6) RHEUMATOID PATIENTS VERSUS CONTROL
GROUP IN RELATION TO CRP.
(significant difference $p < 0.05$)

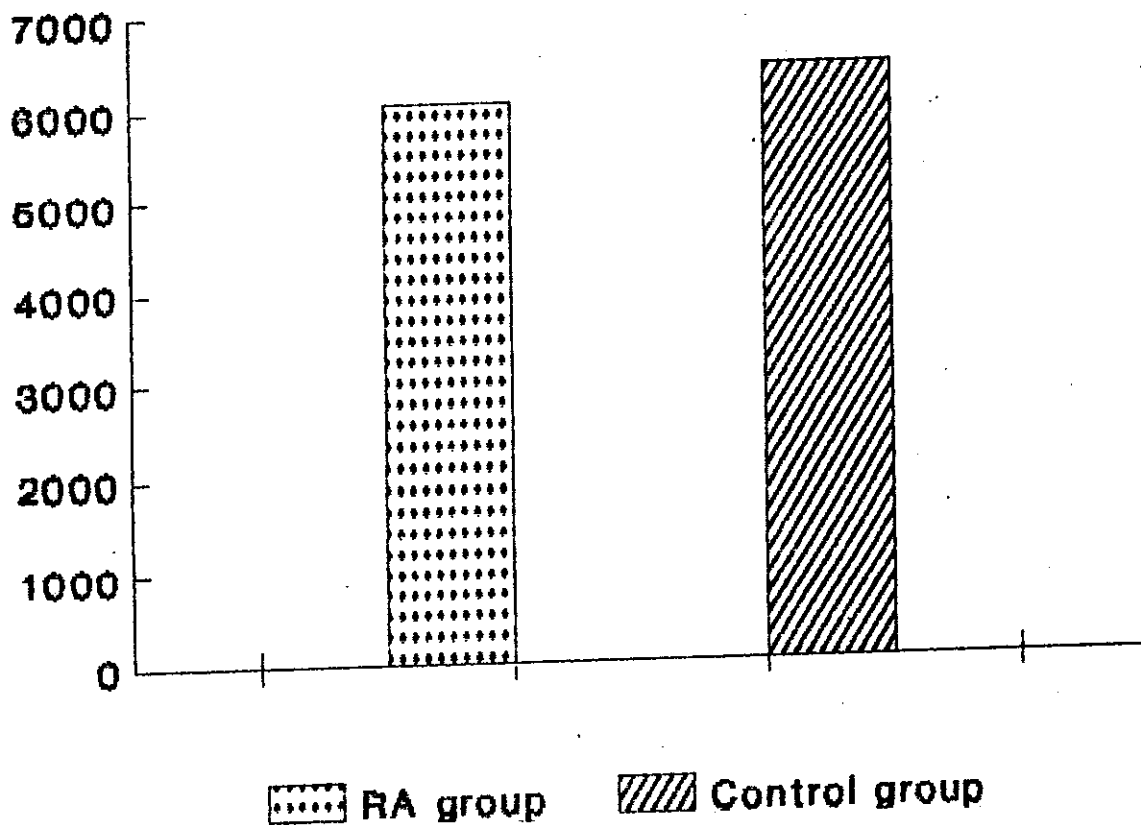


FIGURE (7) RHEUMATOID PATIENTS VERSUS CONTROL
GROUP IN RELATION TO TLC.
(insignificant difference $p > 0.05$)