RESULTS

Group I:

Fourteen patients diagnosed as AMI have received thrombolytic therapy, age ranged from (35-61 years) with a mean age 52 ± 7.4 y. 11 (78.5 %) of them were males and 3 (21.5%) were females.

Group II:

Thirteen patients diagnosed as AMI have not received thrombolytic therapy, age ranged from (50-78 years) with a mean age 62.5 ± 9.4y. 10 (77%) of them were males and 3 (23%) were females.

Group III:

Fifteen control cases age ranged from (38-59 years) with a mean age 47.5 ± 8.0 y. 11 (73%) of them were males and 4 (27%) were females.

Patients were admitted within 6 hours of onset of symptoms.

Blood samples were drown immediately after admission 3,12 and 24 hours after admission.

The results in this study were presented in the following tables and figures.

Table (1): Types of AMI according to ECG finding in different studied groups.

Distribution ECG findings	Group I No: 14		Group II No.		Total No: 27	
	No.	%	No.	%	No.	%
Anterior MI.	10	71%	8	62%	18	66%
Inferior MI.	3	21%	3	23%	6	22%
Antenior and inferior M.I.	I	8%	2	15%	3	12%

This table shows that:

Group I included 10 patients out of 14 had anterior MI (71%),3 patients out of 14 had inferior MI (21%) and one patients (8%) had anterior and inferior MI.

Group II Included 8 patients out of 13 had anterior MI (62%), 3 patients out of 13 had inferior MI (23%) and two patients (15%) had anterior and inferior MI.

Risk Factors:

1- Diabetes Mellitus: (D.M.):

- 14 Patients in both group I,II had DM.
- Group I: 7 patients (50%)
- Group II: 7 patients (53 %)

There was no statistically significant difference in incidence of DM between group I and group II ($P > 0.05$) (Table II).

2- Hypertension

- There were 13 patients in group I,II (48%) had hypertension.

Group I: 6 patients (42 %).

Group II : 7 patients (53%).

There was no significant difference in incidence of hypertension between group I and group II ($P > 0.05$) (Table II).

3- Smoking: There were 16 smokes in group I and group II (59%).

- **Group I:** 8 patients (57%).
- **Group II:** 8 patients (61%).

There was no significant difference between group I and group II ($P > 0.05$) (Table II).

4- Family history of ischemic heart diseases (IHD): There were 11 Patients with IHD in group I and group II (40%).

- **Group I:** 6 patients (42%).
- **Group II:** 5 patients (38%).

There was no significant difference between group I and group II ($P > 0.05$). (Table II).

Table (2): Major risk factors in both ischemic heart disease groups N. B. Group III "Control group" No risk factors.

Group / Risk factors	Group I No : 14	Group II No: 13	Significance
DM	7 (50%)	7 (53 %)	N.S.
Hypertension	6 (42%)	7 (53%)	N.S.
Smoking	8 (57%)	8 (61 %)	N.S.
Family history of IHD	6 (42%)	5 (38%)	N.S.

No. = Number

N.S. = Not significant

No significance difference between patients with AMI who have received thrombolytic therapy and patients with AMI who have not received thrombolytic therapy as regard risk factors. (DM, hypertension smoking and family history of IHD).

Table (3): Comparison between group I (patients who have received thrombolytic therapy) and group III (Control group)as regard maximal levels of biochemical markers of AMI.

Markers \ Groups	Group I	Group III	P
C.K.MB (Iu/L)	119.0 ± 11.2	12.3 ± 3.6	< 0.00 1
Leuk. Count ($X10^3/mm^3$)	14.1 ± 2.3	5.4 ± 1.2	< 0.001
IL. 8 [pg/ml]	380.0 ± 308.0	4.4 ± 2.2	< 0.01

$P \leq 0.05$ significant $P \leq 0.01$ Highly significant

From this table it is evident that there was highly significant differences between group I and group III (Control group) as regard serum level of CK.MB, total leukocytic count and serum level of IL-8.

Table (4): Comparison between group II (patients who have not received thrombolytic therapy) and group III control group as regard maximal levels of biochemical markers of AMI.

Markers \ Group	Group II	Group III (control group)	P
CK.MB (Iu/L)	93.0 ± 17.5	12.3 ± 3.6	< 0.001
Leuk. count ($x10^3/mm^3$)	12.4 ± 2.3	5.4 ± 1.2	< 0.01
IL.8 (pg/ml)	318.0 ± 275.0	4.4 ± 2.2	< 0.01

$P \leq 0.05$ significant $P \leq 0.01$ highly significant

From this table demonstrates that there was highly significant difference between group II and group III (control group) as regard serum level of CK-MB, total leukocytic count and serum level of IL-8.

Table (5): Comparison between group I and group II as regard maximal serum level of CK-MB and time of maximal rise.

Items \ Group	Group I (who have received thrombolytic therapy)	Group II (whohave not received thrombolytic therapy)	P
Max. level of CK-MB (I.U./L)	119.0 ± 11.2	93.0 ± 17.5	< 0.01
Peak time (hours)	11.8 ± 3.8	19.4 ± 4.8	< 0.01

$P \leq 0.01$: highly significant

From this table it is evident that there was highly significant difference between group I (who have received thrombolytic therapy) and group II (who have not received thrombolytic therapy) as regard maximal level of CK-MB and time of maximal rise.

Table (6): Comparison between group I and group II as regard maximal total leukocytic count and time of maximal rise.

Item \ Group	Group I (who have received thrombolytic therapy)	Group II (who have not received thrombolytic therapy)	P
Max. level of total leuk. count (x $10^3/mm^3$).	14.1 ± 2.3	12.4 ± 2.3	< 0.05
Peak time (hours)	11.8 ± 3.9	22.1 ± 5.3	< 0.01

$P \leq 0.05$ significant $P \leq 0.01$ highly significant

From this table, shows that there was significant difference between group I (who have received thrombolytic therapy) and group II (who have not received thrombolytic therapy) as regard maximal level of total leukocytic count and there was highly significant difference between group I and group II as regard time of maximal rise of total leukocytic count.

Table (7): Comparison between group I and group II as regard maximal serum level of IL-8 and time of maximal rise.

Item \ Group	Group I (who have received thrombolytic therapy)	Group II (who have not received thrombolytic therapy)	P
Max. level of serum IL-8 (pg/ml)	380 ± 308	318 ± 275	> 0.05
Peak time (hours)	4.5 ± 1.2	6.5 ± 3.2	< 0.05

P ≥ 0.05 non significant P ≤ 0.05 significant

From this table, it is evident that there was no significant difference between group I (who have received thrombolytic therapy) and group II (who have not received thrombolytic therapy) as regard maximal level of IL-8 and there was significant difference between group I and group II as regard time of maximal rise of IL-8.

Table (8): Comparison between group I and group II as regard early indicators of AMI.

Group / Marker	Group I(who have received thrombolytic therapy)		Group II (who have not received thrombolytic therapy)	
	Maximal rise (has)	Maximal level	Maximal rise (hrs)	Maximal value
Il-8	4.5 ± 1.2	380 ± 308 (pg/ml)	6.5 ± 3.2	318 ± 275 (pg/ml)
Leuk.	11.8 ± 3.9	14.1 ± 2.3 ($x10^3/mm^3$)	22.1 ± 5.3	12.0 ± 2.3 ($x10^3$ x mm^3)
Ck.MB	11.8 ± 3.8	119 ± 11.2 (iu/L)	19.9 ± 3.8	93.0 ± 17.5 (iu/L)

This table shows that

Maximal rise (peak) of serum level of IL-8, total Leukocytic count and serum level of CK. MB reached earlier in group I (who have received thrombolytic therapy) than in group II (who have not received thrombolytic therapy).

IL-8 is an early markers of AMI in both group (group I and group II) than total leukocytic count and serum level of CK-MB.

Table (9): Comparison between patients with AMI (both groups I &II) and control group (group III) as regard maximal serum level of CK-MB, total leukocytic count and serum level of IL-8.

Markers \ Group	Patients with A.M.I. (group I and II)	Control group (group III)	P
CK-MB (IU/L)	106.0 ± 14.4	12.3 ± 3.6	< 0.001
Leukocytic count (x1000/mm^3)	13.0 ± 2.3	5.4 ± 1.2	< 0.01
IL-8 (pg/ml)	349 ± 291	4.4 ± 2.2	< 0.01

$P \leq 0.05$ significant $P \leq 0.01$ highly significant

From this table:

It is evident that there were highly significant differences between patients with AMI (both groups I and II) and control group (group III) as regard maximal serum level of CK-MB, total leukocytic count and serum level of IL-8.

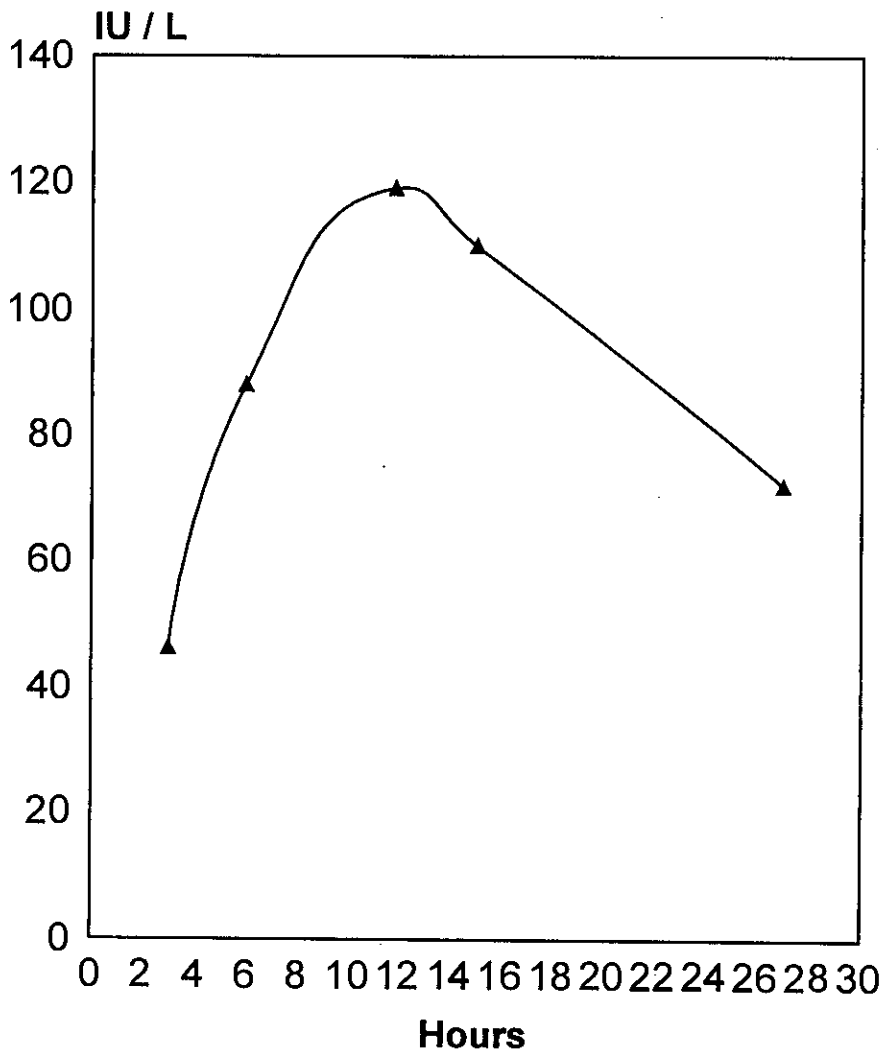
Table (10): Maximal levels and time of maximal rise of biochemical markers in patients with A MI {Both groups I,II}.

Pt with A MI / *Biochemical Markers*	*Maximal rise (Hrs)*	*Maximal level*
IL-8	5.5 ± 2.1	349 ± 291 (Pg/ml)
Leukocytic count	16.5 ± 2.3	13.0 ± 2.3 (x 10^3/mm^3)
CK. MB	15.0 ± 3.8	106.0 ± 14.4 (I.U/L)

This table shows that maximal rise (Peak) of serum level of IL. 8 was reached at 5.5 ± 2.1 hours total leukocytic count was reached at 16.5 ± 2.3 hours and serum CK- MB was reached at 15.0 ± 3.8 hours in patients with AMI.

IL.8 in an early markers of patients with AMI.

FIGURE 1 : Follow - Up Curve For Serum CK-MB In Group I*



This curve shows that maximal serum level of CK-MB in group I equals 119 IU/L at 11.8 hours .

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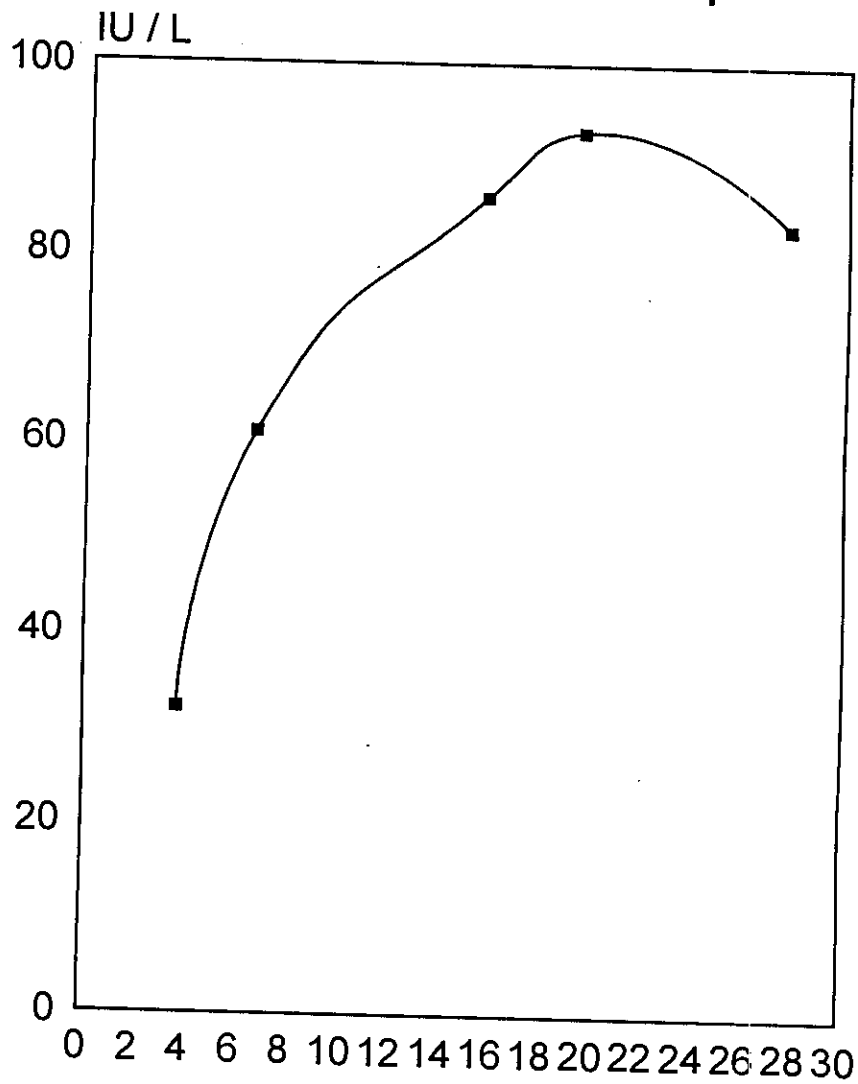
* group I (patients with AMI who have received thombolytic therapy)

FIGURE 2 : Follow - Up Curve For Serum CK-MB In Group II*



This curve shows that maximal serum level of CK-MB in group II equals 93 IU/L at 19.5 hours .

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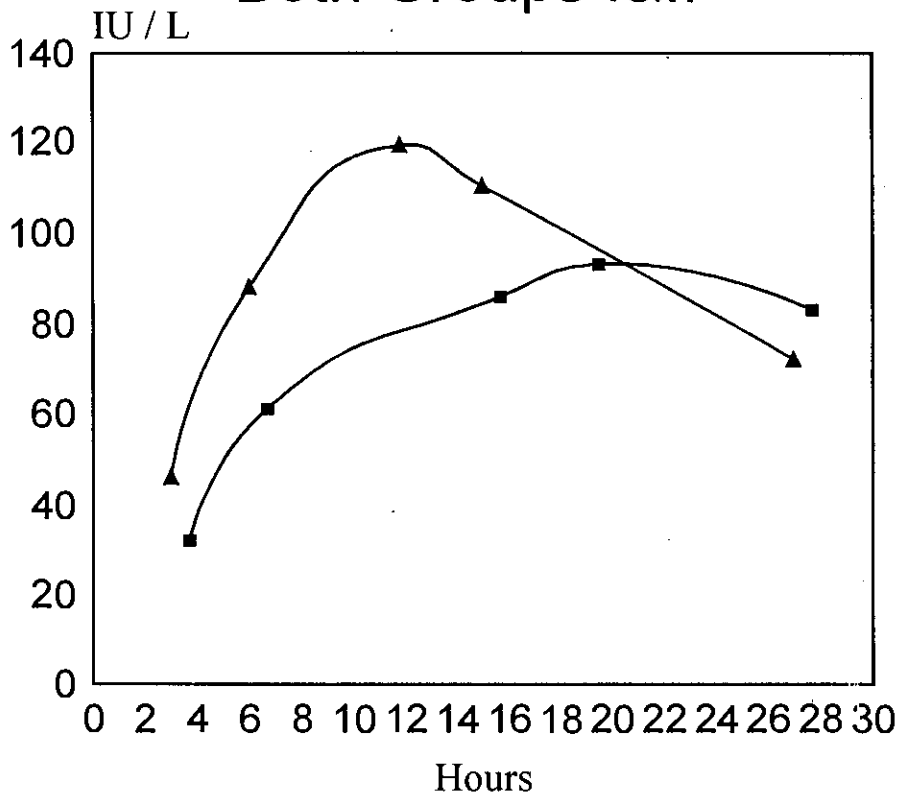
* group II (patients with AMI who have not received thombolytic therapy)

FIGURE 3 : Follow-Up Curve For CK-MB Serum Level After AMI in Both Groups I&II*



This figure shows that group I mean serum CK-MB value 119 IU/L at 11.8 hour , while in group II 93 IU/L at 19.5 hour.

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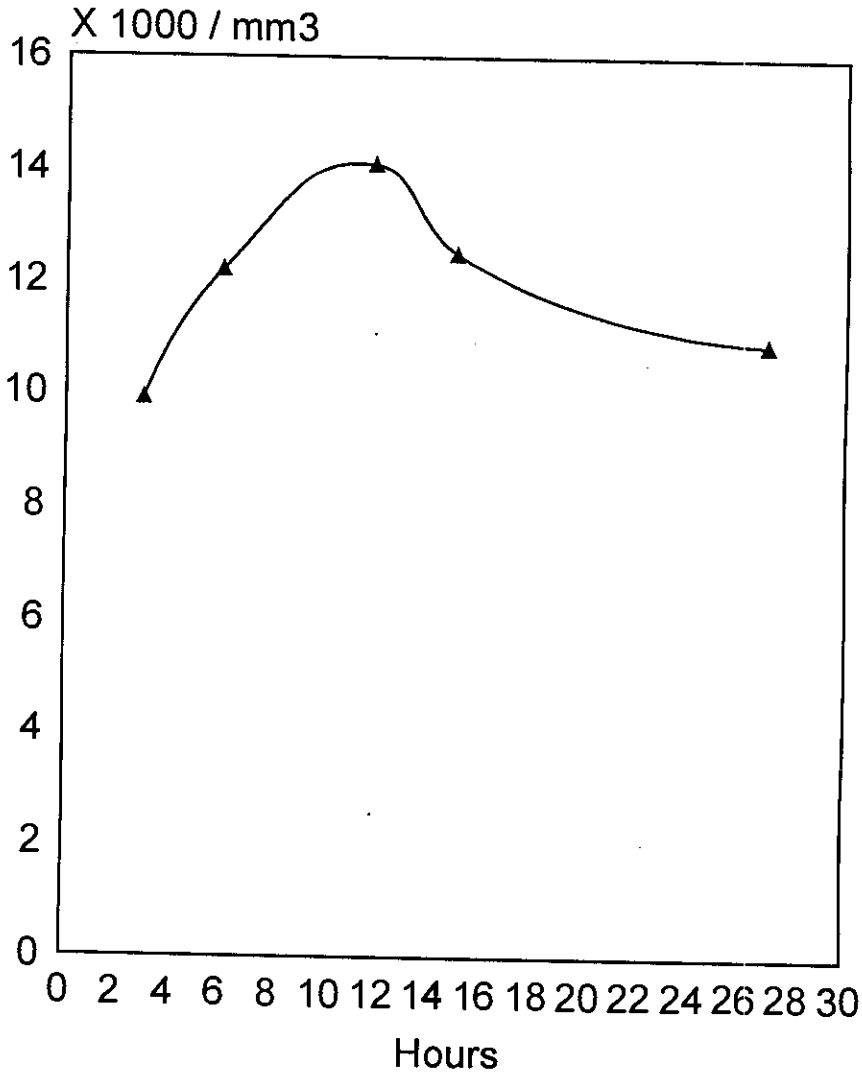
* group I (patients with AMI who have received thrombolytic therapy)
* group II (patients with AMI who have not received thrombolytic therapy)

FIGURE 4 : Follow - Up Curve For Total Leukocytic Count In Group I*



This curve shows that maximal level of total leukocytic count in group I reaches 14.1x1000/mm3 at 11.8 hours.

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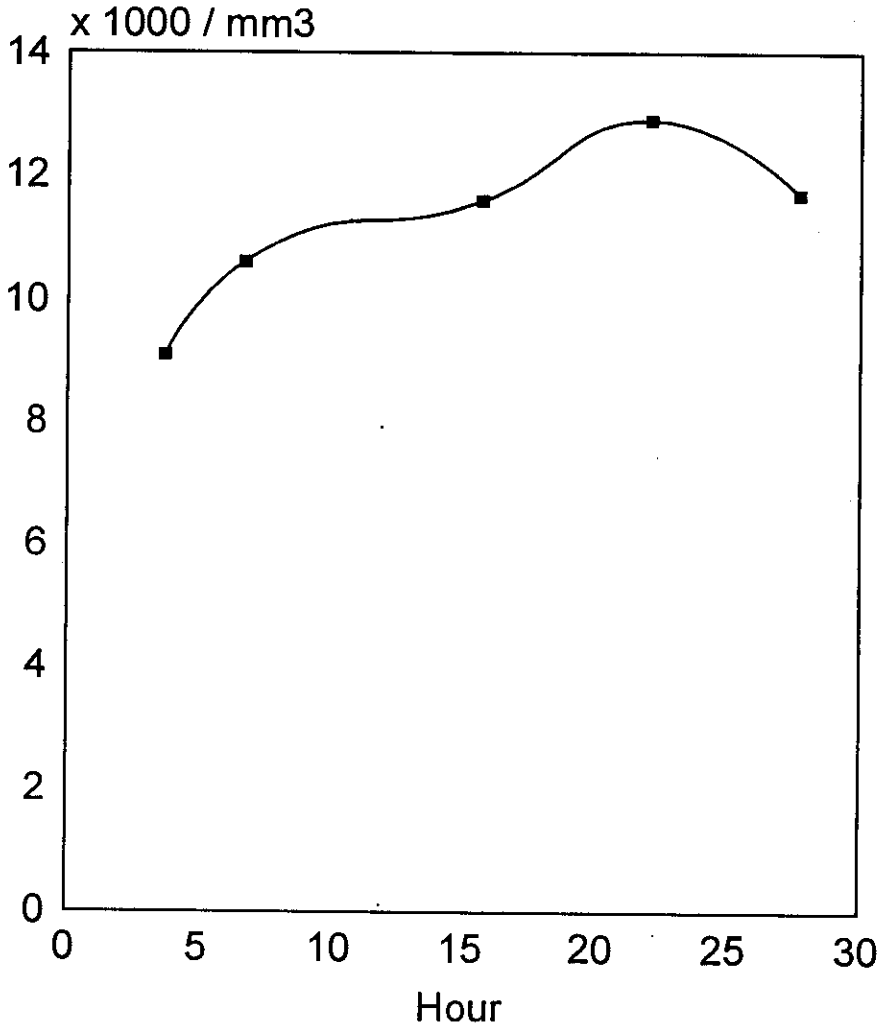
* group I (patients with AMI who have received thrombolytic therapy)

FIGURE 5 : Follow - Up Curve For Total Leukocytic Count In Group II*



This curve shows that maximal level of total leukocytic count in group II reaches 12.4x1000/mm3 at 22.1 hours.

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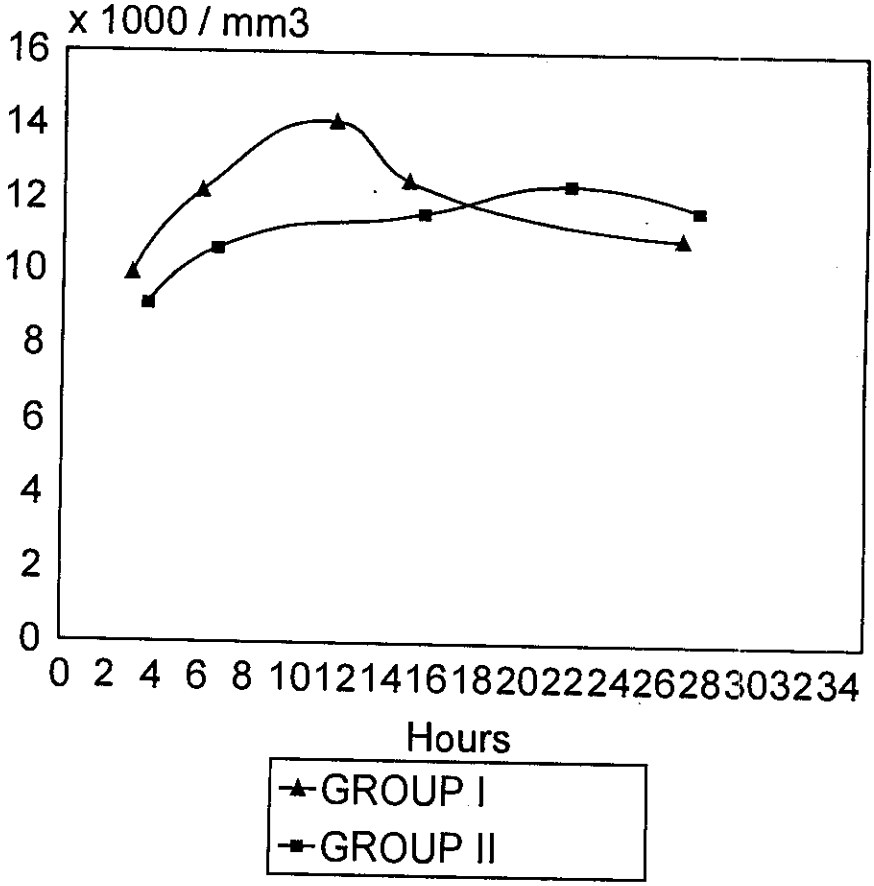
* group II (patients with AMI who have not received thrombolytic therapy) .

FIGURE 6 : Follow-Up Curve For total Leukocytic Count After AMI in Both Groups I&II*



This figure shows that maximal level of total leukocytic count in group I reaches 14.1x1000/mm3 at 11.8 hour , while in group II reaches 12.4x1000/mm3 at 22.1 hour.

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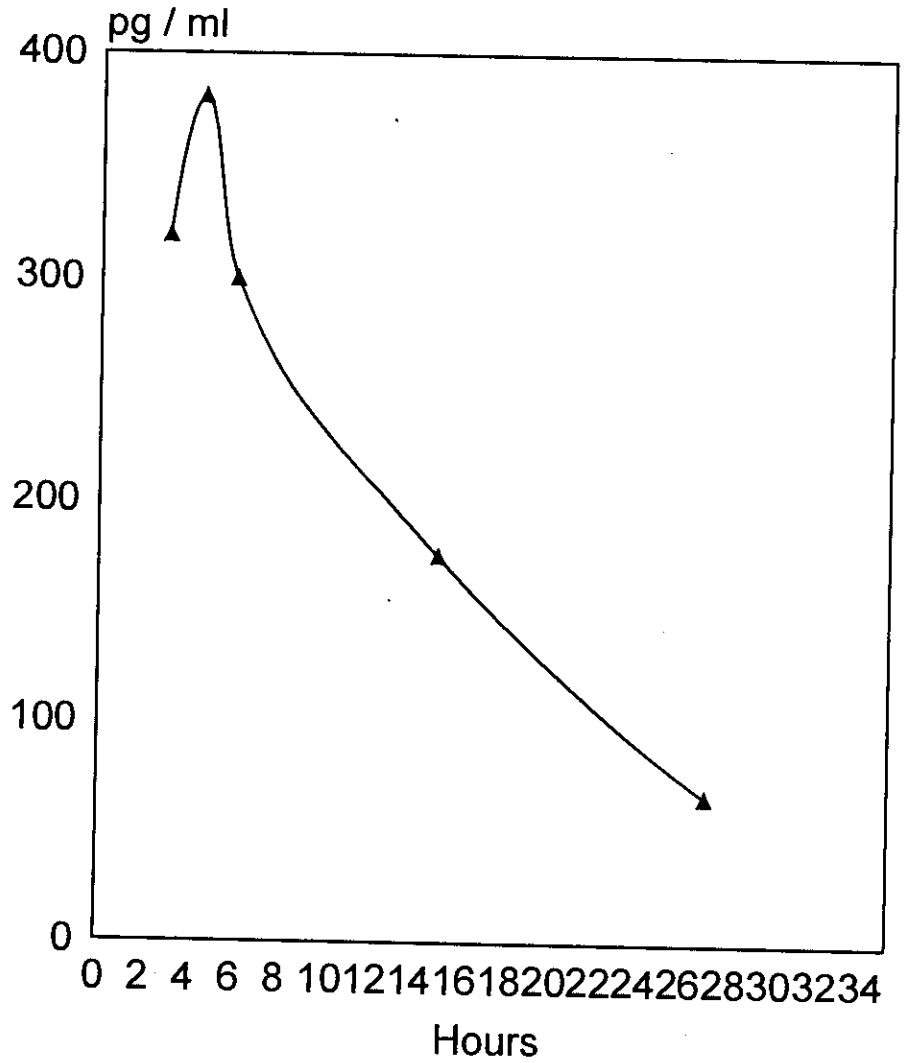
* group I (patients with AMI who have received thrombolytic therapy)
* group II (patients with AMI who have not received thrombolytic therapy)

FIGURE 7 : Follow - Up Curve For Serum IL-8 In Group I*



This curve shows that maximal level of IL-8 in group I reaches 380 pg/ ml at 4.5 hours .

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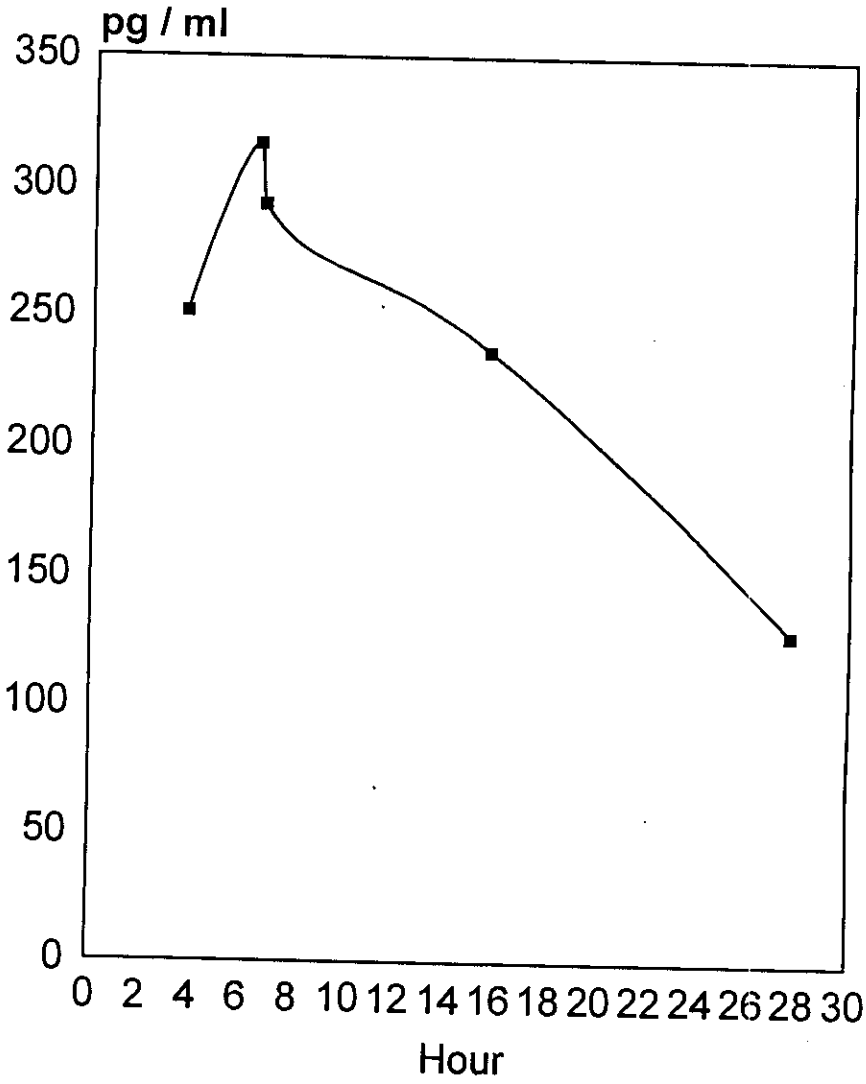
* group I (patients with AMI who have received thrombolytic therapy) .

FIGURE 8 : Follow - Up Curve For Serum IL-8 In Group II*



This curve shows that maximal level of IL-8 in group II 316 pg/ ml at 6.5 hours .

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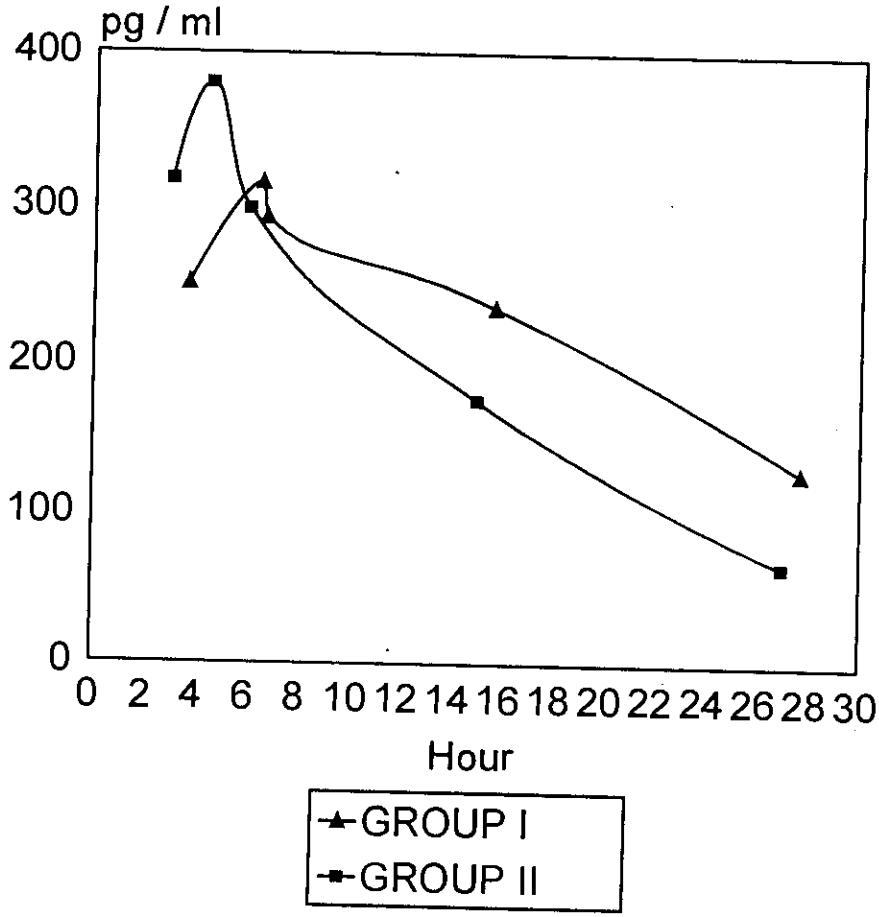
* group II (patients with AMI who have not received thrombolytic therapy) .

FIGURE 9 : Follow-Up Curve For Serum IL-8 After AMI In Both Groups I&II*



This figure shows that in group I mean peak serum level of IL-8 380 pg/ml at 4.5 hour, while in group II 316 pg / ml at 6.5 hour.

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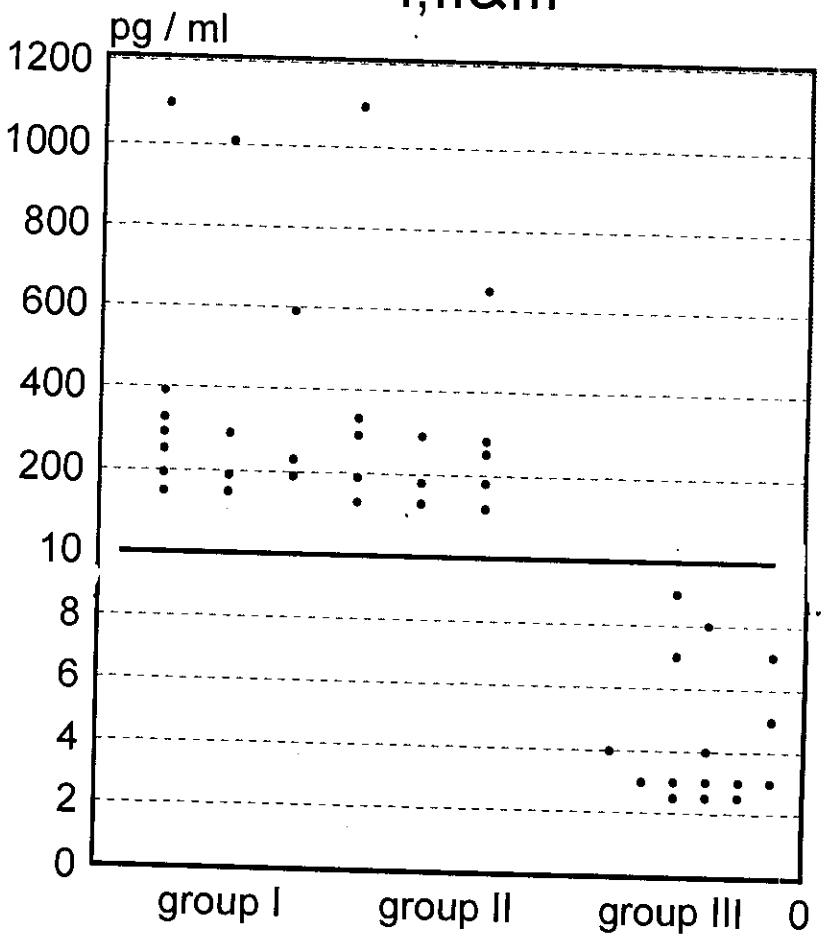
* group I (patients with AMI who have received thrombolytic therapy)
* group II (patients with AMI who have not received thrombolytic therapy)

FIGURE 10 :Maximum Serum Concentration Of IL-8 In Groups I,II&III*



This figure shows the maximum serum concentration of IL-8 in group I , group II and group III , 14 patients in group I , 13 patients in group II and 15 patients in group III. IL-8 levels were higher in both group I & 2 , than in group III.

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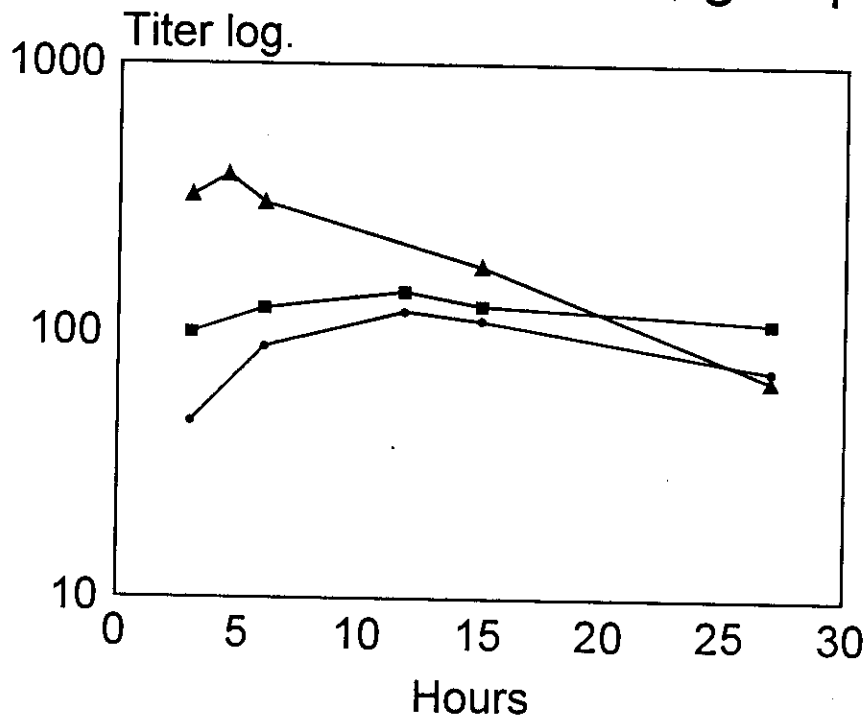
* group I (patients with AMI who have received thrombolytic therapy)

* group II (patients with AMI who have not received thrombolytic therapy) .

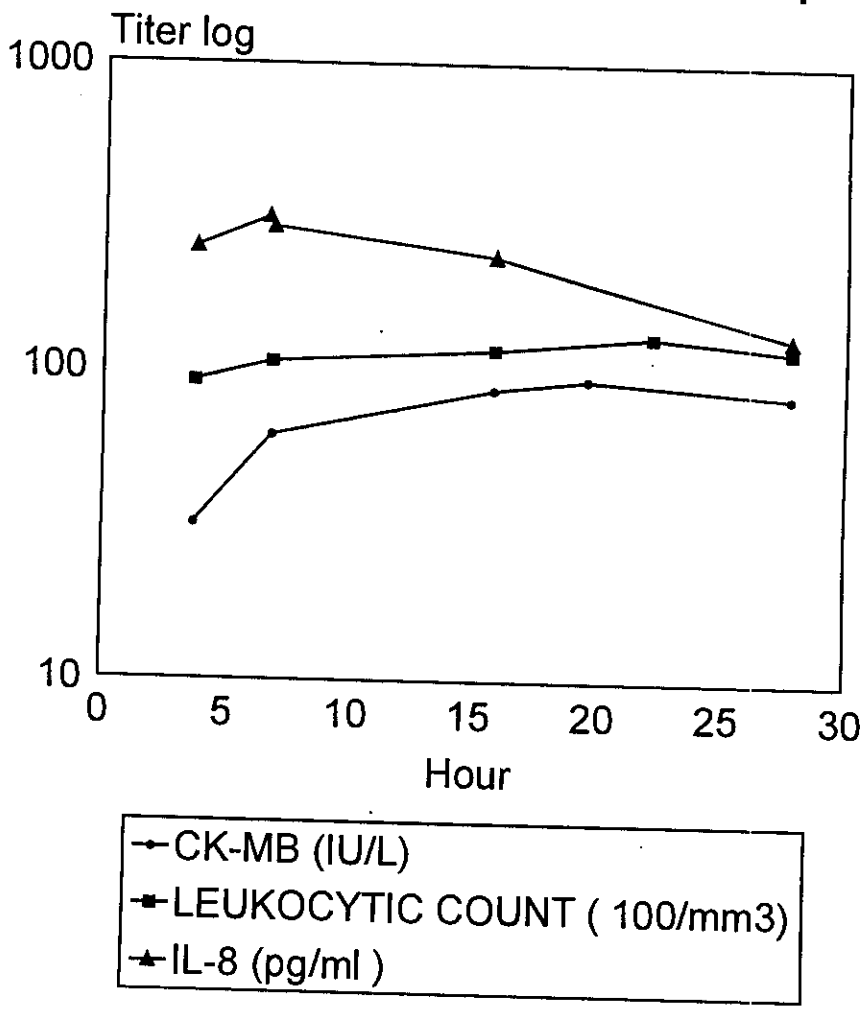
* group III (control group).

FIGURE 11 : Time Course Of Biochemical Markers In group I.



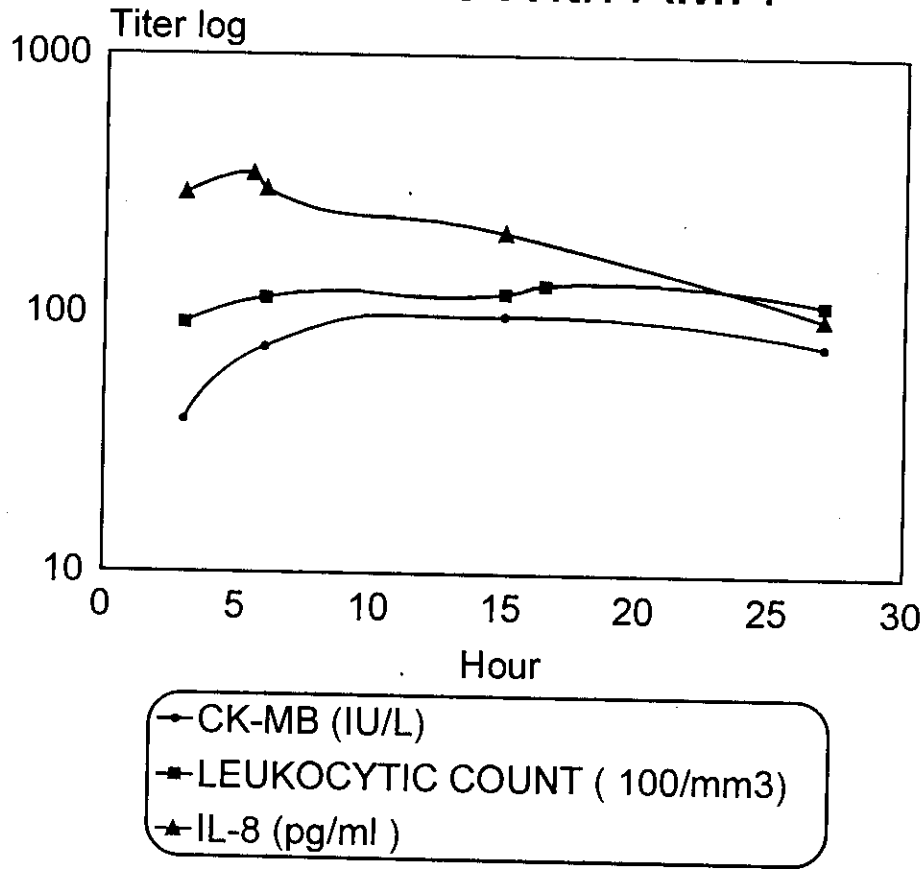
This figure shows the time course of biochemical markers in group I " patients have received thrombolytic therapy " . The IL-8 level was clearly elevated . Its peak was reached at 4.5 hours after the onset of symptoms , the leukocytic count was elevated and reached the peak at 11.8 hours after the onset of symptoms and the CK-MB was elevated and reached the peak at 11.8 hours after the onset of symptoms .

Figure 12 : Time Course Of Biochemical Markers In Group II.



This figure shows the time course of biochemical markers in group II " patients have not received thrombolytic therapy " . The IL-8 level was clearly elevated . Its peak was reached at 6.5 hours after the onset of symptoms , the leukocytic count was elevated and reached the peak .at 22.1 hours after the onset of symptoms and the CK-MB was elevated and reached the peak at 19.5 hours after the onset of symptoms .

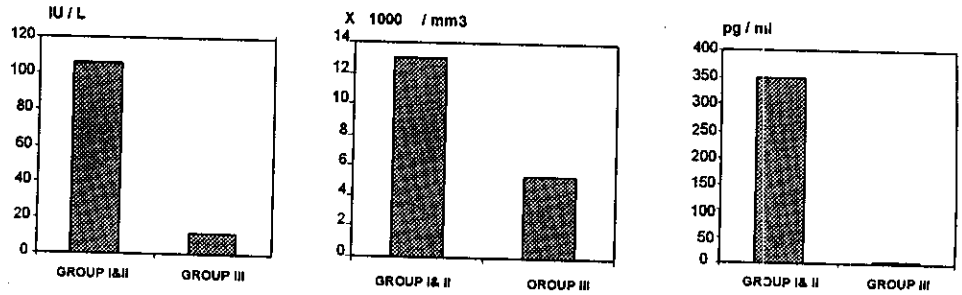
FIGURE 13 : Peak Level And Time Course Of Biochemical Markers In All Patient With AMI .



This figure shows the time course of biochemical markers in group I " patients have received thrombolytic therapy " and group II " patient have not received thrombolytic therapy ". The IL-8 level was clearly elevated . Its peak was reached at 5.5 hours after the onset of symptoms , the leukocytic count was elevated and reached the peak at 16.5 hours after the onset of symptoms and the CK-MB was elevated and reached the peak at 15 hours after the onset of symptoms .

FIGURE 14 :

Comparison between patients with AMI (both groups I & II) and control group (GROUP III) as regards maximal serum level of CK-MB , total leukocytic count and serum level of IL-8 .



Serum level of CK-MB | Total leukocytic count | Serum level of IL-8

This figure shows the maximum serum level of CK-MB , total leukocytic count and serum level of IL-8 were higher in patients with AMI (both groups I and II) and control group (group III) .