RESULTS

Results

Basic characteristics of the study group

The study group consists of **60** patients, with an age ranging from 39 to 70 years. It includes **53** males (88.3%) and **7** females (11.6%). **41** (68.3%) patients are hypertensive, **29** (48.3%) patients are diabetics and **45** (75%) patients are smokers, **33** (55%) patients are dyslipidemic and **14** (23.3%) patients have positive family history for coronary artery disease.

*Table (3) :***Basic characteristics of the whole study group**:

Number of patients		60
Age in years		Ranging (39 – 70 years)
-mean age		55 ± 15 years
Sex		
-Male	number (%)	**53** (88.3 %)
-Female	number (%)	**7** (11.6%)
Hypertensives	**number (%)**	**41** (68.3%)
Diabetics	**number (%)**	**29** (48.3%)
Smokers	**number (%)**	**45** (75%)
Dyslipidemics	**number (%)**	**33** (55%)
Positive FH	**number (%)**	**14** (23.3%)
Type of MI		
-Anterior		**39** (56%)
-Non-anterior		**21** (35%)
Time to reperfusion therapy		Ranging (1.30 – 10.30 hrs)

According to the mode of reperfusion the study group was classified into:

GROUP I, it includes 30 patients who received streptokinase as a treating modality.

GROUP II, it includes 30 patients who underwent primary intervention as a treating modality .

Both groups were comparable as regard age ,sex ,risk factors for coronary artery disease, location of myocardial infarction and time to intervention .

Table ( ) **:Comparison of the clinical data in both groups**

Clinical data	Group I Thrombolysis/30		Group II Angiographic/30		P-value
1-Age	Range (39-70)		Range(49-70)		>0.05
mean age	55 ±15 years		60 ±10 years		
2-Sex					
males	26	86.6%	27	90%	>0.05
females	4	13.3%	3	10%	
3-Risk factors					
Smoking	20	66.6%	25	83%	>0.05
Hypertension	21	70%	20	66.6%	>0.05
Diabetes	14	46.6%	15	50%	>0.05
Family history	6	20.0%	8	26.6%	>0.05
Dyslipidemia	14	46.6%	19	63.3%	>0.05
4-Previous IHD	11	36.6%	16	53.3%	>0.05
5-Type of MI					
-Anterior	2	66.6%	19	63.3%	>0.05

	Streptokinase		Primary PCI		
-Non-anterior	10	33.3%	11	36.6%	>0.05
6-therapy	Streptokinase		Primary PCI		
7-Time to therapy	Range		Range		
Pain to hospital	(1- 7 hrs)		(1-10 hrs)		>0.05
Pain to therapy	(2- 8 hrs)		(1.30-10.30hrs)		>0.05
Hospital delay	1.3 ± 0.9 hours		1.2 ± 0.7 hours		>0.05
8-Cardiac enzymes					
-Total CK	1997 ± 224		1229 ± 376		>0.05
-Ck-mb	122 ± 187		101 ± 175		>0.05
-Peak time	14.5 ± 5		10.05 ± 3		>0.05

IN-HOSPITAL COMPLICATIONS

During hospitalization (after therapy) the incidence of left ventricular dysfunction diagnosed clinically was more in the thrombolytic group than in the angioplasty group, 7/30 (23.3%) VS 5/30 (16.6%)) respectively, $P<0.05$).

The incidence of life threatening arrythmias VF or VT that needed treatment were higher in the thrombolytic group than in the angioplasty group 9/30 (30%) VS 15/30 (16.6%) respectively, $P<0.05$.

On the other hand, the incidence of recurrent ischemia were significantly higher in the thrombolytic group than in the angioplasty group 11/30(36.6%) & 9/30 (16.6%) respectively, $P<0.05$ and the incidence of infarctions were significantly higher in the thrombolytic group than in the angioplasty group 2/30 (6.6%) & 1/30 (3.3%) respectively, $P<0.05$.

The mortality rate during hospitalization in the angioplasty group was highly significantly less than that in the thrombolysis group 1/30 (3.3%) VS 4/30 (13.3%) respectively, P<0.05.

Table ( ) : **In-hospital complications in both groups**

Clinical complications	Group 1 thrombolysis/30		Group 2 Angioplasty/30		P-value
1-Clinical LV dysfunction	7	23.3%	5	16.6 %	<0.05
2-Recurrent ischemia	11	36.6%	9	16.6%	<0.05
3-Infarction	2	6.6 %	1	3.3%	<0.05
4-Life threating arrythmias	9	30%	5	16.6%	<0.05
5-Bleedings	3	10%	2	6.6%	>0.05
-hematuria	2	6.6%		------	
-hematoma at puncture site	1	3.3%	2	6.6%	
6-Mortality	4	13.3%	1	3.3%	<0.05

PRE-DISCHARGE ANGIOGRAPHIC DATA

1-The extent of CAD was almost similar in both groups; more than one vessel affection was present in 19/30 (63.3%) of patient in both groups, single vessel disease was present in 11/30 (36.6 %) of patients in both groups,P >0.05.

2-Totally occluded IRA (100% stenosis) was found in a significantly higher incidence in the thrombolysis group than in the angioplasty gronp 12/30 (41%) VS 3/30 (10%) respectively, P<0.05.

3-The mean residual stenosis of the IRA was significantly higher in the thrombolysis group; (91.56 ± 16.7% VS 37 ± 28.7%) in the angioplasty group, P<0.05.

4-The achieved TIMI grade 3 flow (complete reperfusion) was significantlIy higher in the angioplasty group than in the thrombolysis group 8/30 (83.3%) VS 20/30 (26.6%) respectively while the presence of TIMI flow 0-1 was significantly higher in the thrombolysis group 12/30 (40%) VS 3/30 (10%) respectively,P<0.05.

5-The patency rate was significantlIy higher in the angioplasty group than in the thrombolysis (90% VS 59%) respectively,P<0.05.

Table ( ) : Angiographic data in both groups

Clinical data	Group 1 thrombolysis		Group 2 angioplasty		P-value
1-Extent of CAD					
-Single vessel	11	36.6%	11	36.6%	>0.05
-2 vessels	8	26.6%	12	40%	<0.05
-3 vessels	11	36.6%	7	30%	<0.05
->1 vessel	19	63.3%	19	63.3%	>0.05
2- IRA					
-LAD	20	66.6%	19	63.3%	>0.05

-Non-LAD	10	33.3%	11	36.6%	>0.05
3-Residual stenosis of IRA :	mean(91.6%)		mean(37%)		<0.05
-Total occlusion	12	41%	3	10%	<0.05
-< 50%	1	3.3%	25	83.3%	<0.05
-> 50 %	29	96.6%	5	16.6%	<0.05
4-TIMI flow in IRA					
-0 – 1	12	40%	3	10%	<0.05
-2	10	30.3%	1	3.3%	<0.05
-3	8	26.6%	26	83.3%	<0.05
5-Patency rate	18	59%	27	90%	<0.05

Left ventricular ejection fraction (LVEF) measured by Echocardiogram

LVEF measured by echocardiogram at discharge was significantly better in the angioplasty group (50.2 + 9. 7%) than that in the thrombolysis group (40.88 + 7.5%), P<0.05.
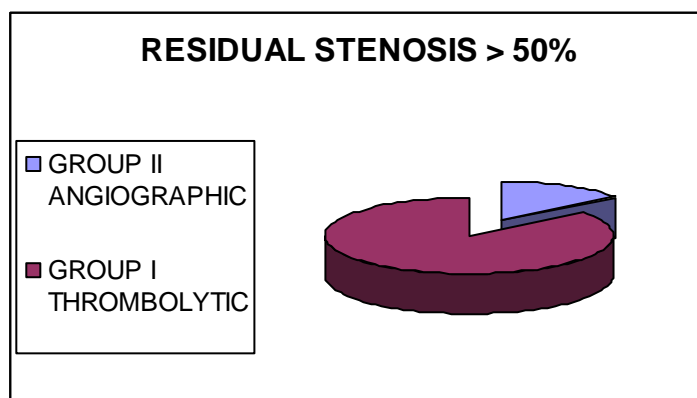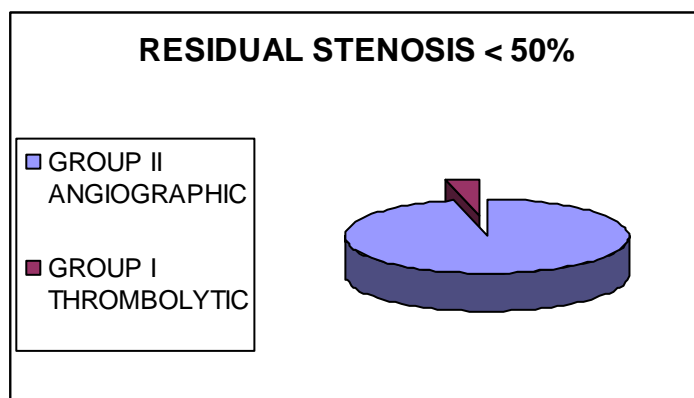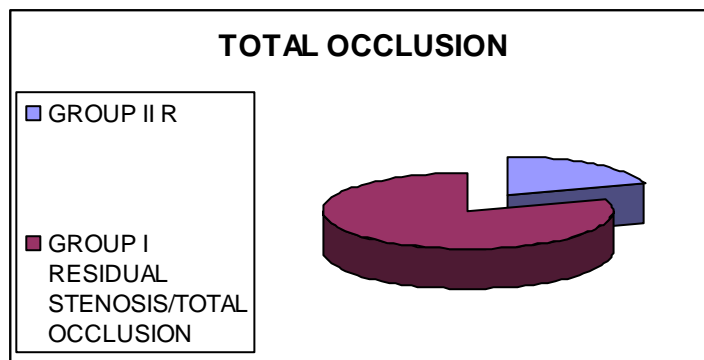
Table (7) **: (LVEF) measured by Echocardiogram**

(LVEF)	Group 1 thrombolysis	Group 2 angioplasty	P-value
Echocardiogram	40.88 ± 7.5%	50.2 ± 9. 7%)	<0.05

ANGIOGRAPHIC DATA OF THE VESSELS AFFECTED

- 7 -

RESIDUAL STENOSIS

- 8 -

TOTAL OCCLUSION

- GROUP II R

- GROUP I RESIDUAL STENOSIS/TOTAL OCCLUSION

RESIDUAL STENOSIS < 50%

- GROUP II ANGIOGRAPHIC

- GROUP I THROMBOLYTIC

RESIDUAL STENOSIS > 50%

- GROUP II ANGIOGRAPHIC

- GROUP I THROMBOLYTIC
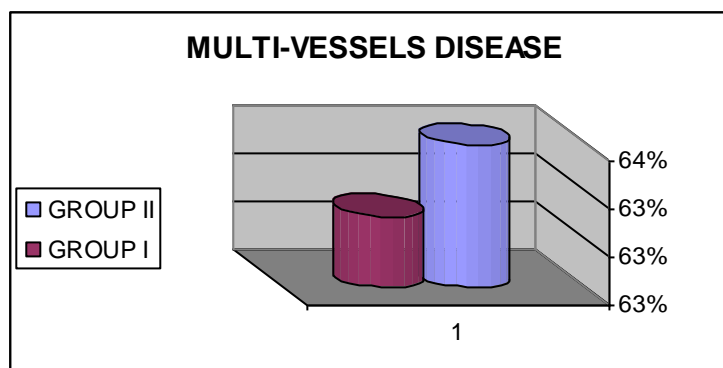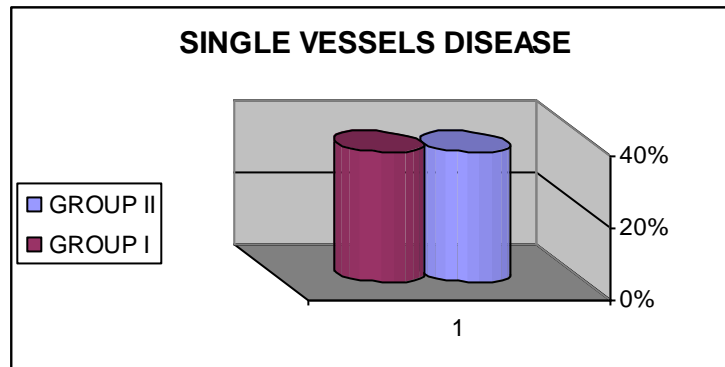
TIMI FLOW GRADE IN THE IRA

TIMI FLOW 0 -1

□ GROUP II
■ GROUP I

0.4
0.3
0.2
0.1
0

2   1

TIMI FLOW GRADE 2

□ GROUP II
■ GROUP I

0.4
0.3
0.2
0.1
0

2   1

TIMI FLOW GRADE 3

□ GROUP II
■ GROUP I

100%

50%

0%

1
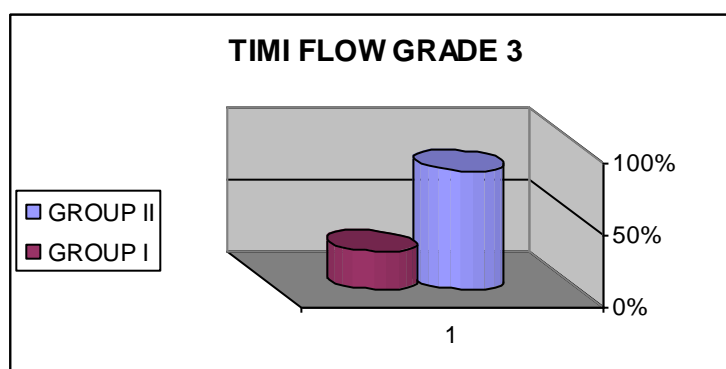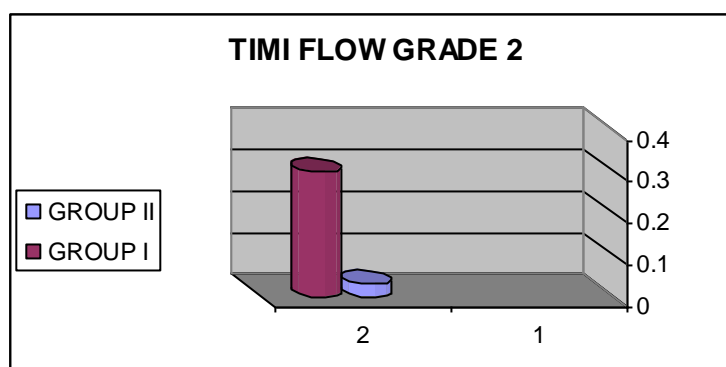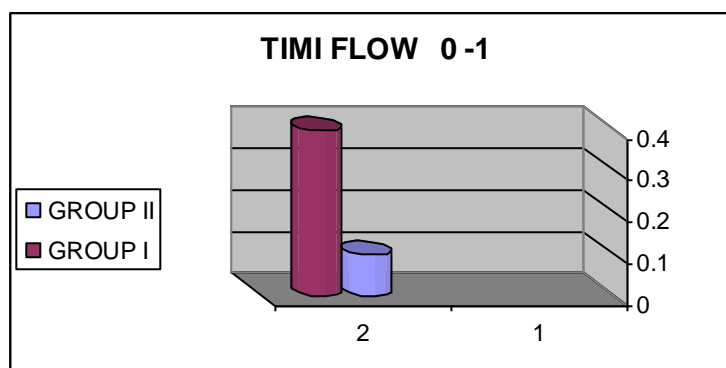
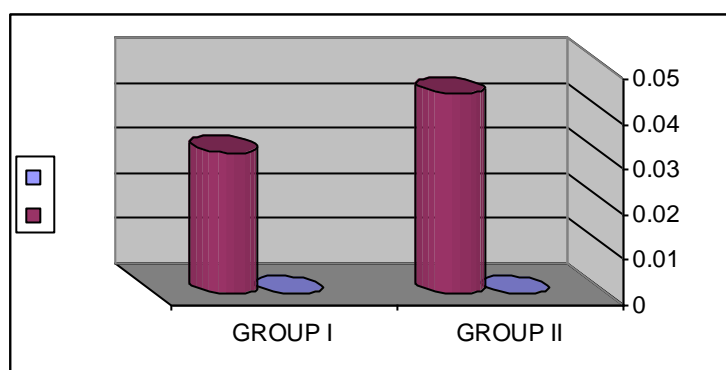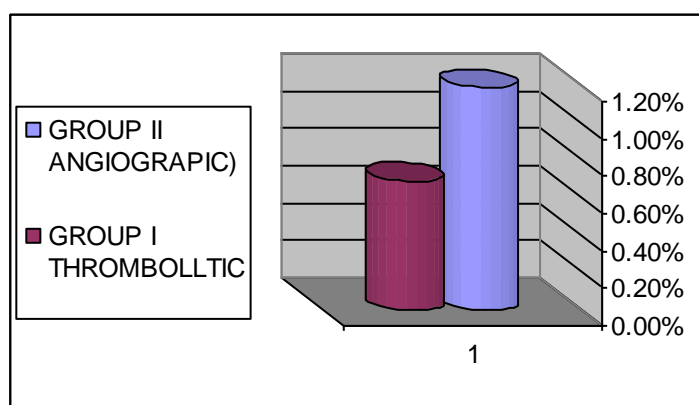# TIME TO TREATMENT

PAIN TO HOSPITAL
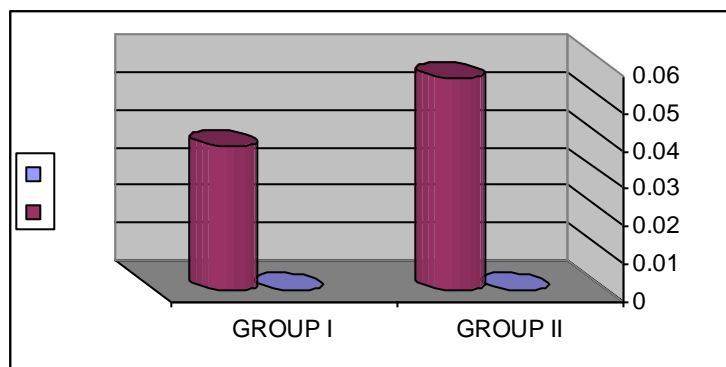
Time /hours

PAIN TO THERAPY

Time/hours

HOSPITAL DELAY

Time/hours

COMPLICATIONS

IN HOSPITAL COMPLICATINS

GROUP II (ANGIOGRAPHIC)
GROUP I (THROMBOLYTIC)

150.00%
100.00%
50.00%
0.00%

1

MORTALITY RATE

GROUP II (ANGIOGRAPHIC)
GROUP I (THROMBOLYTIC)

20.00%
10.00%
0.00%

1

EJECTION FRACTION (EF%)

GROUP II
GROUP I EF%