Demographic and baseline clinical criteria:

Age and sex:

In this study, the first group consisted of 40 patient, 26 (65%) males, and 14 (35%) females, their age ranged from 39 to70 years with a mean age of 56 +/- 12 year.

The control group (the second group), consisted of 20 cases, 7 (33.3%) females, and 13 (66.7%) males their age ranged from 34 to 72 year with a mean age of 54 +/- 11 year.

Table (1) The mean and standard deviation (X+/-) of ages for the study groups:

Age / Study group	Range	X ± SD	t	P
Cases	**39 – 73**	**53.2 ± 9.1**	**1.99**	**> 0.05**
Control	**34 - 73**	**47.8 ± 10.3**		

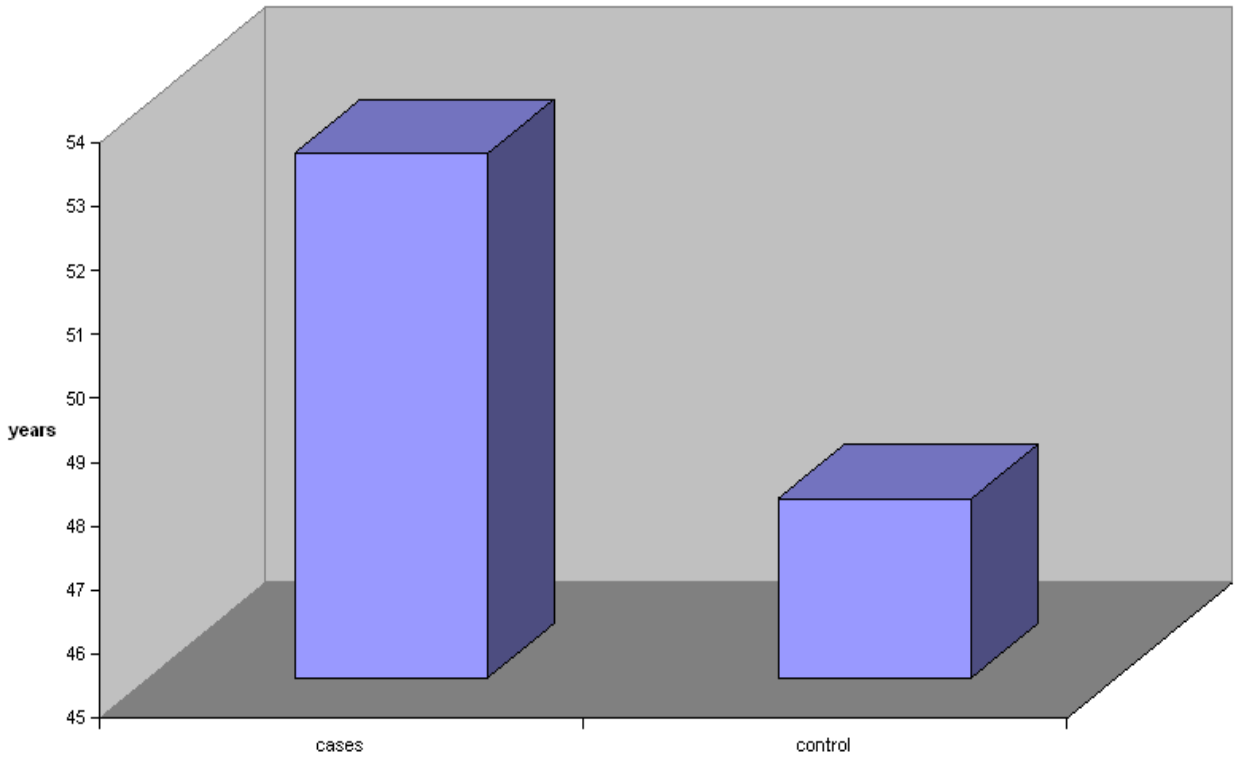


Figure (1) The mean and standard deviation (X+/-) of ages for the study groups

Table (2) Distribution of the study group according to sex :

Study group / Sex	Cases n=40	Control n=20	Total
Males	26 65%	12 60%	38
Females	14 35%	8 40%	22
Z	1.9	0.89	
P	< 0.05	> 0.05	

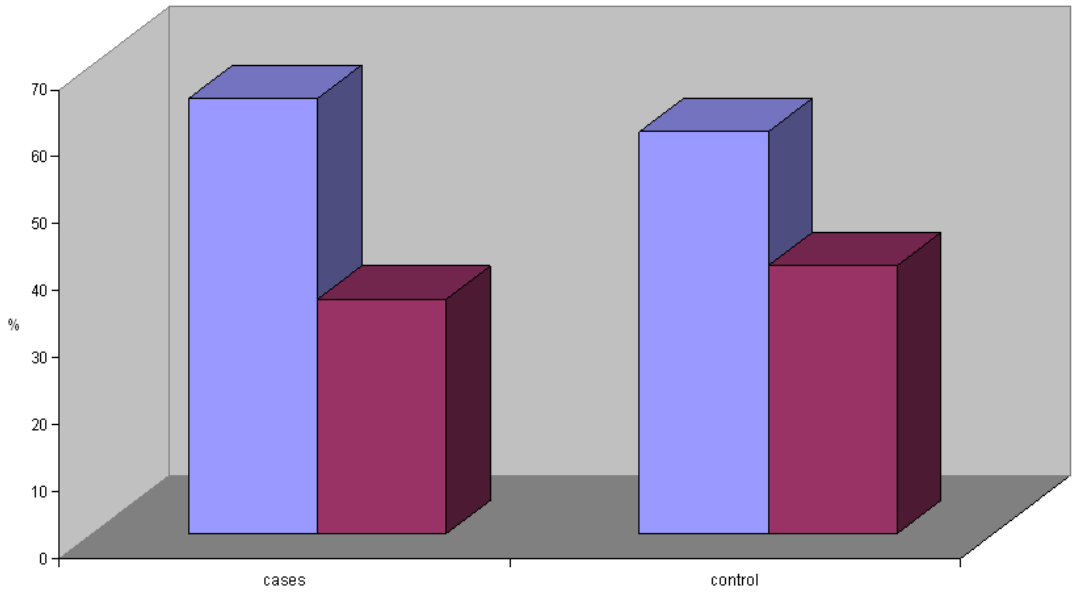


Figure (2) Distribution of the study group according to sex

Risk factors:

Twenty four patients (60%) was smokers, twenty patients(50%) was diabetic, sixteen patients (40%) had dyslipidemia, twenty one patients (55%) had hypertension, and fourteen patients(35%) had +ve family history.

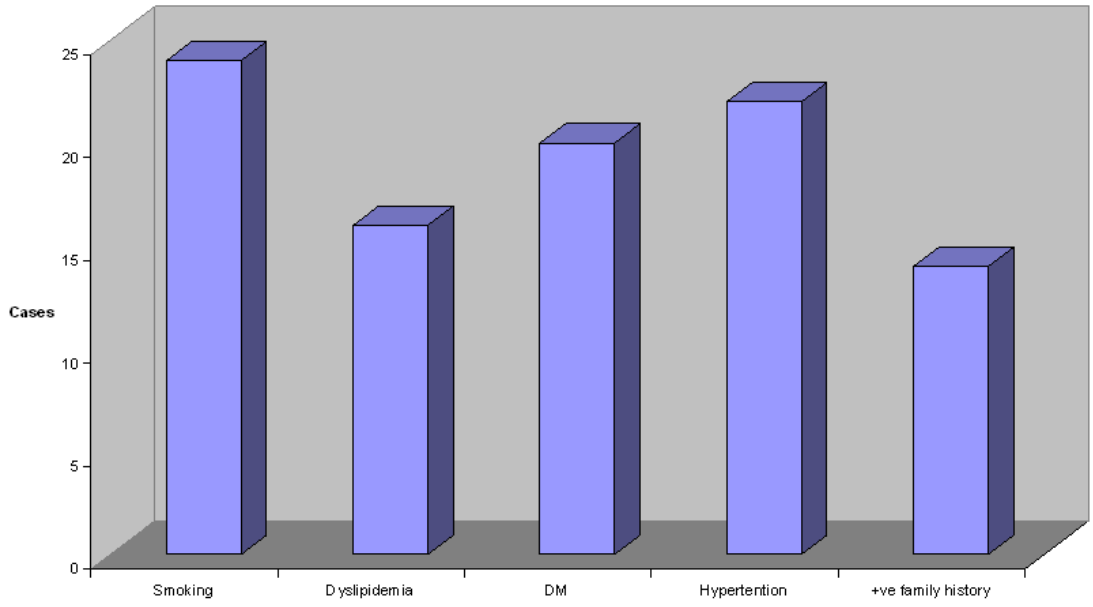
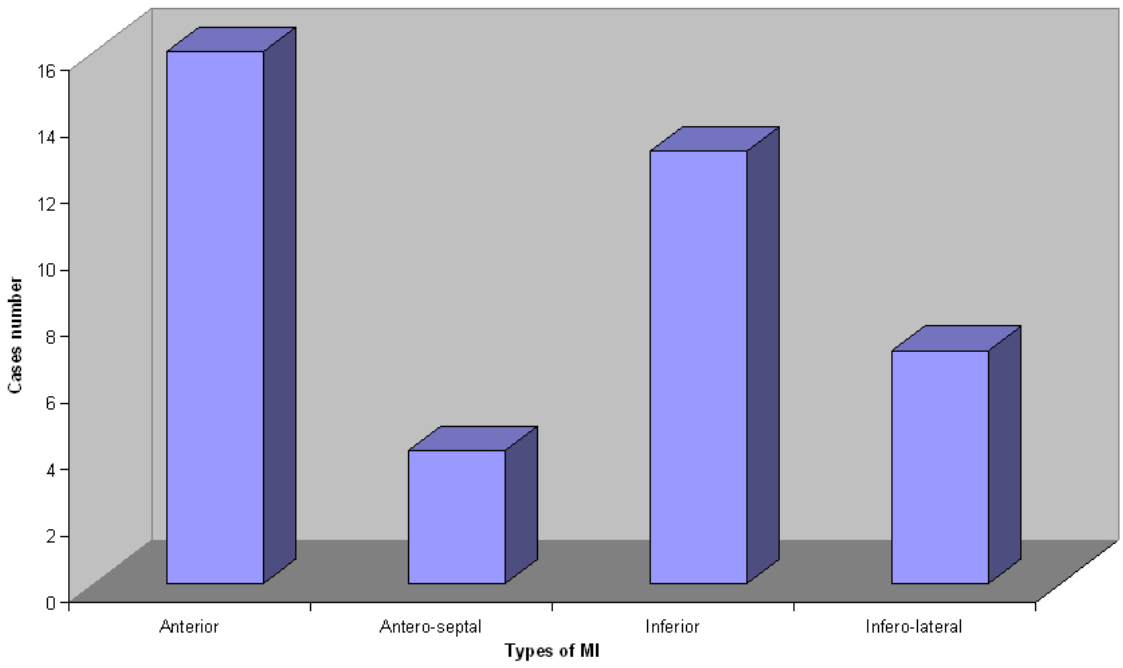


Figure (3) Distribution of risk factors in group (1).

Table(3) Types of myocardial infarction in the studied patients:

Type of MI	Number (%)
Anterior	16 (40%)
Antero-septal	4 (10%)
Inferior	13 (32.5%)
Lateral	7 (17.5%)



Figure(4)Types of myocardial infarction in the studied patients

Hospital course of all studied patients and complications occurred:

The main duration of hospital admission was 7.5 +/- 2.5 days. Death occurred in 3 patients (7.5%), heart failure occurred in 4 patients (10 %) , A-V block occurred in 3patients (7.5%), VT occurred in 2 patients (5%), and VF in one patient (2.5%).

Table(4)complications occurred during the hospital course.

	N of patients 40
Duration of hospital stay(days)	7.5 +/- 2.5
Death	3 (7.5%)
Heart failure	4 (10%)
A-V block	3 (7.5%)
VT	2 (5%)
VF	1 (2.5%)

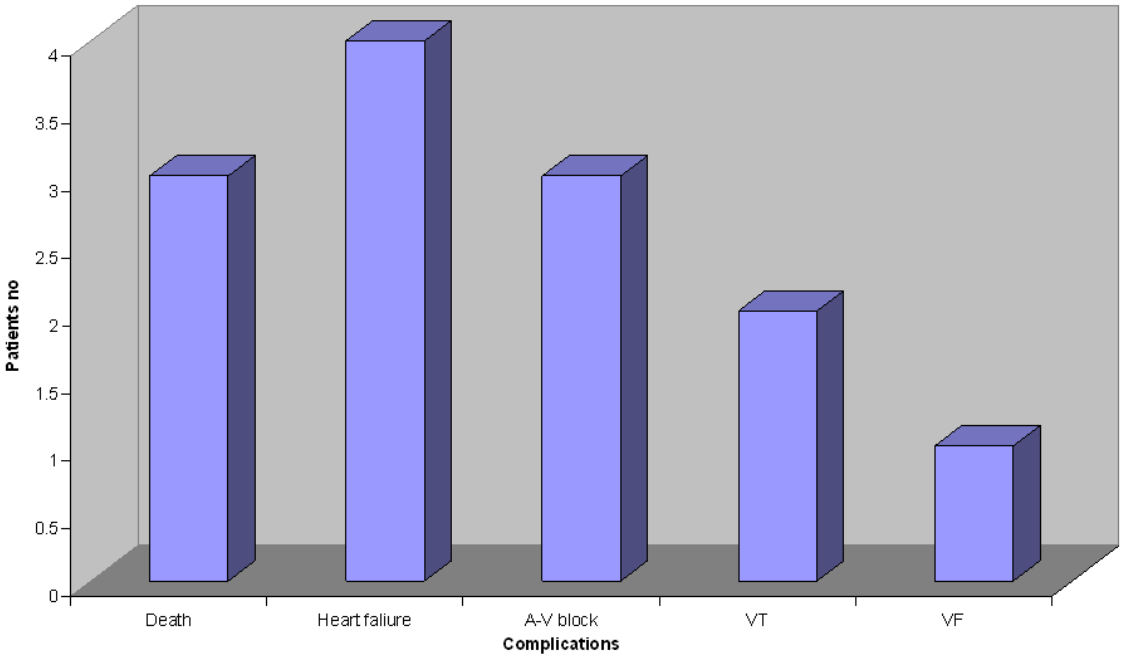


Figure (5)complications occurred during the hospital course

Serum level of homocysteine in the two studied groups:

The main value of **HCY** was **18.2+/-4.6 umol/L** in group (1) and was **113.01+/- 3.4 umol/L** in the control, with a significant statistical difference between the two groups.

Table (5) X +/- SD of HCY level among the study groups:

HCY level / Study groups	Range	X +/- SD	t	P
Cases	6.8 – 73	18.2 +/- 4.6	2.14	< 0.05
Control	7.5 – 19.3	13.01 +/- 3.4		

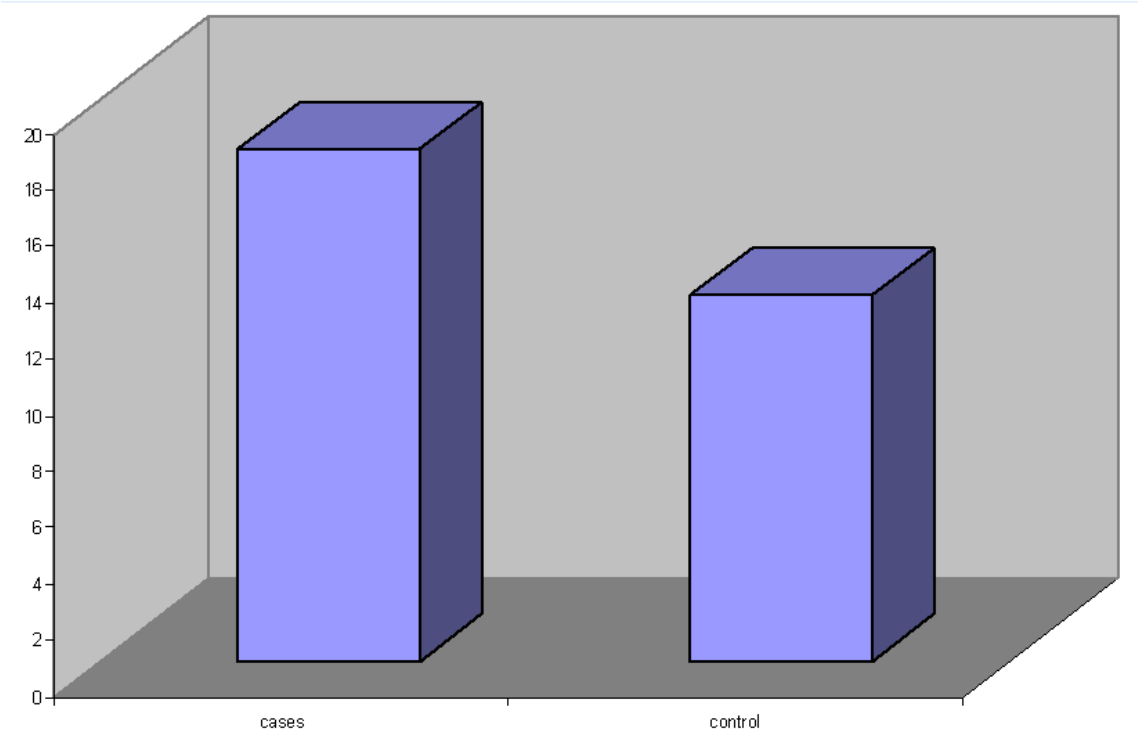


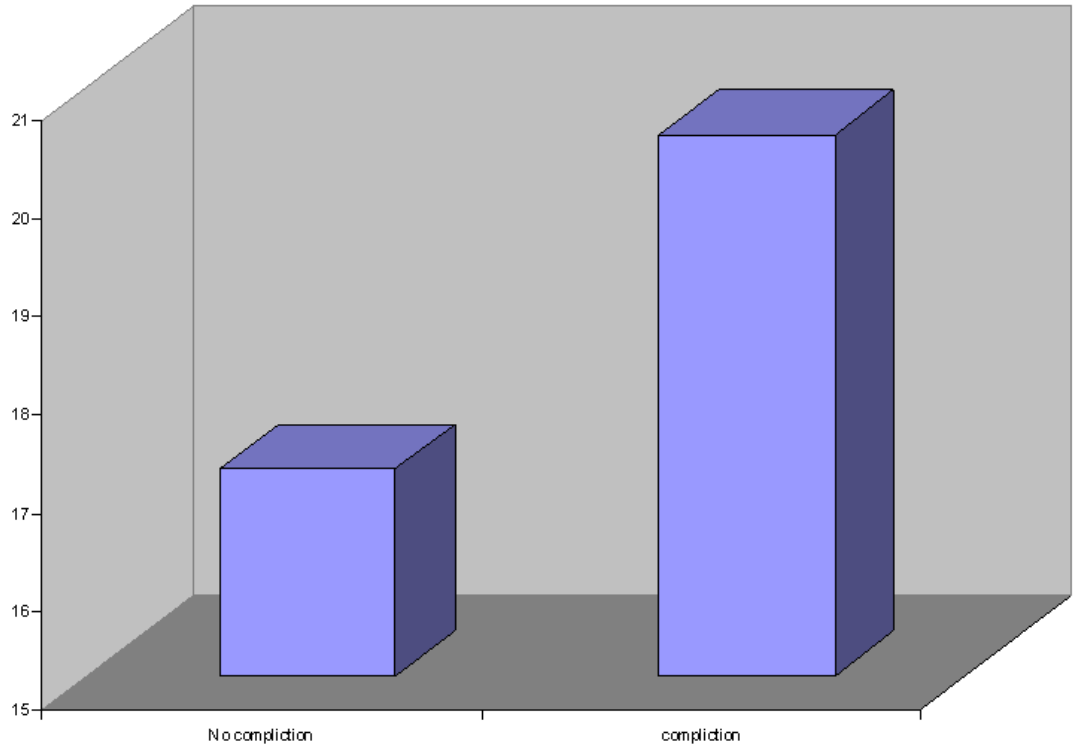
Figure (6) Mean +/- SD of HCY level among the study groups

Serum HCY level in the complicated (group A) and non-complicated (group B) groups:

The main value of HCY level in patients with complications (group2 A) was 20.5 +/-4.3 umol/L and in non-complicated patients (group2 B) was 18.1+/4.8 umol/L without a significant statistical difference (P value > 0.05

Table(6)Mean and SD of HCY among cases according to complications:

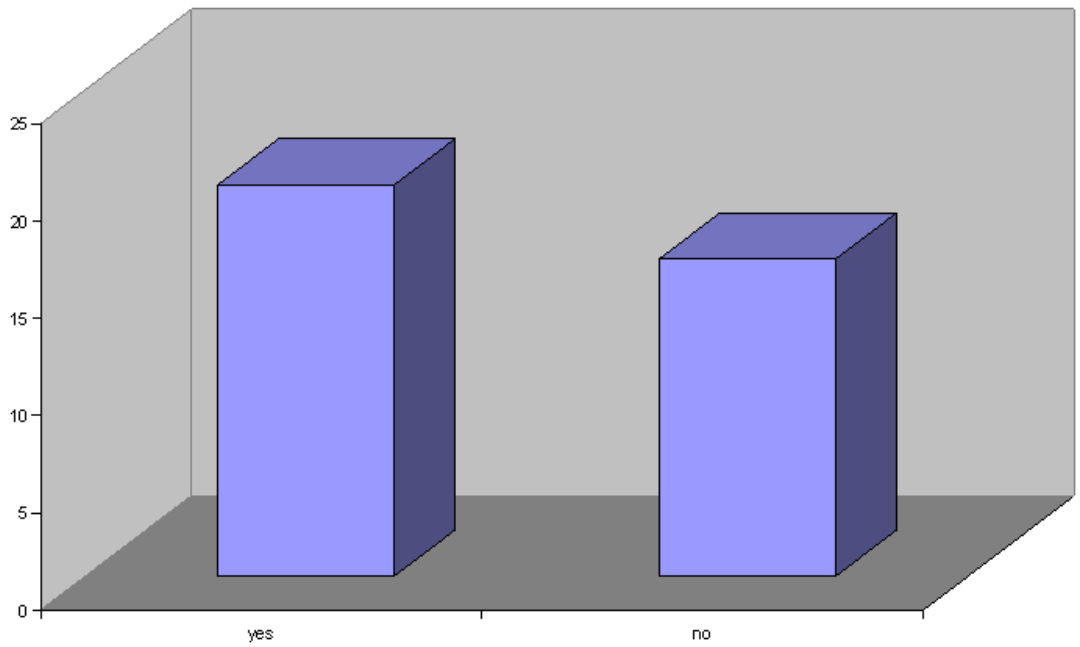
HCY / Complication	X +/- SD	t	P
With complications N = 13	20.5 +/- 4.3	**0.7**	**> 0.05**
Without complications N = 27	18.1+/- 4.8		



Figure(7)Mean and SD of HCY among cases according to complications

Table (7) mean and SD of HCY level among cases according to DM :

HCY / DM	no	%	± SD	t	P
Present	20	50	20.1 ± 18.5	0.82	> 0.05
Absent	20	50	16.3 ± 9.2		



Figure(8) mean and SD of HCY level among cases according to DM

Table (8) mean and SD of HCY among cases according to HTN:

HCY / HTN	No	%	X ± SD	t	P
Present	22	55	16.5 ± 13.1	0.81	> 0.05
Absent	18	45	20.4 ± 16.5		

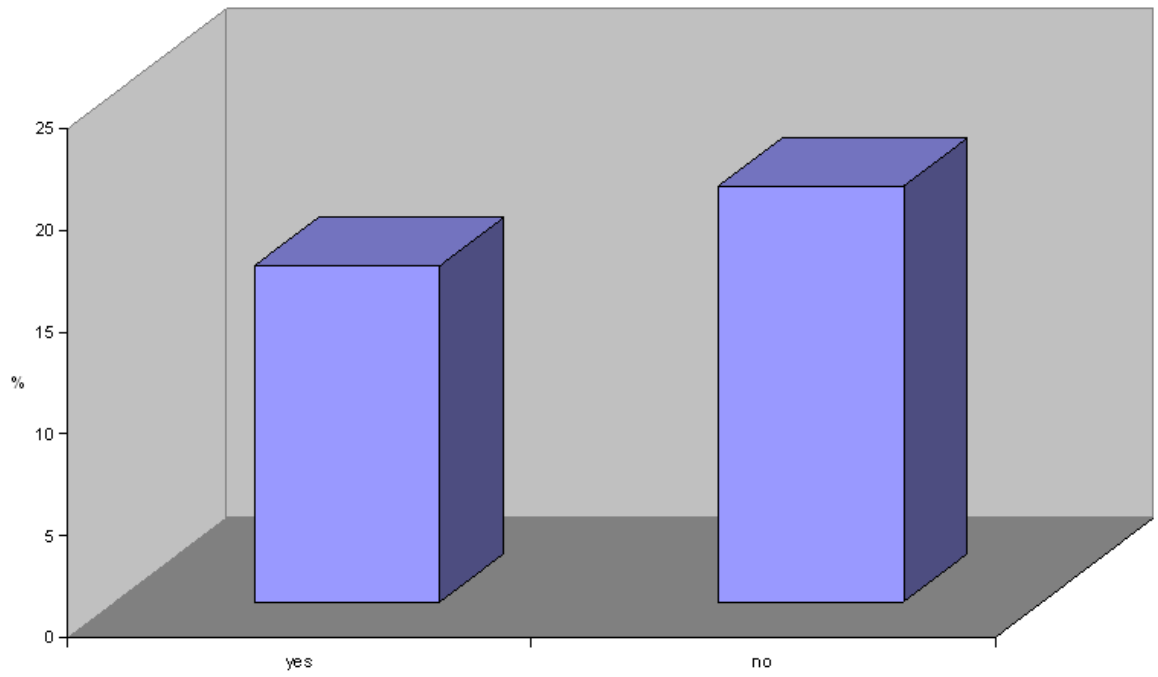


Figure (9) mean and SD of HCY among cases according to HTN

Table (9) mean and SD of HCY among cases according to Dislypidemia:

HCY / Dislypidemia	No	%	X ± SD	t	P
Present	16	40	18.1 ± 13.2	0.17	> 0.05
Absent	24	60	18.9 ± 15.7		

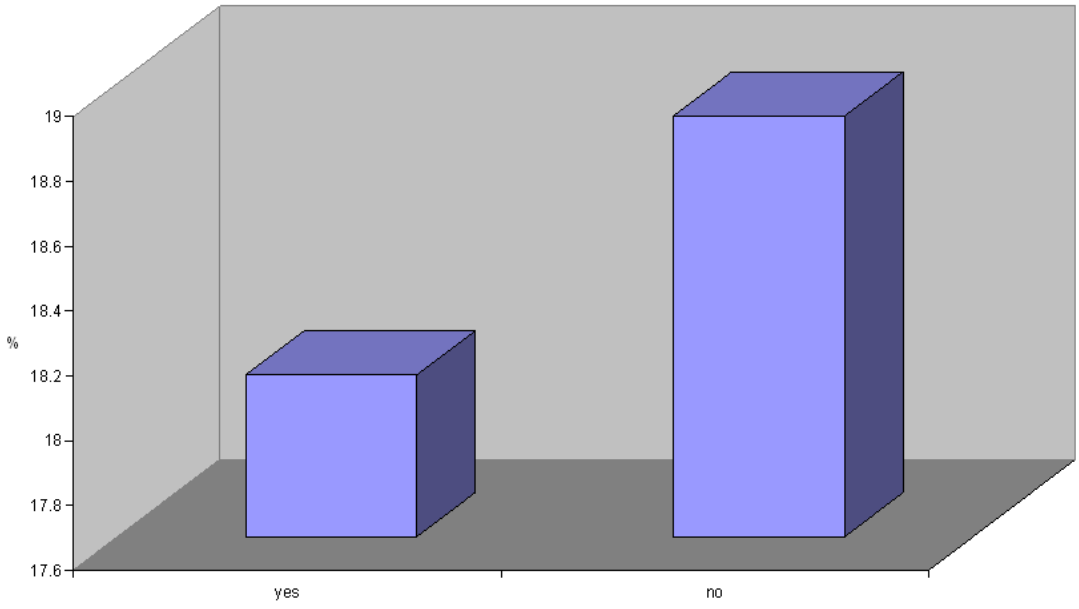


Figure (10) mean and SD of HCY among cases according to Dislypidemia

Table (10) the mean and SD of HCY among cases according to Smoking:

HCY / Smoking	No	%	X ± SD	t	P
Present	24	60	19.2 ± 16.1	0.58	> 0.05
Absent	16	40	16.6 ± 12.3		

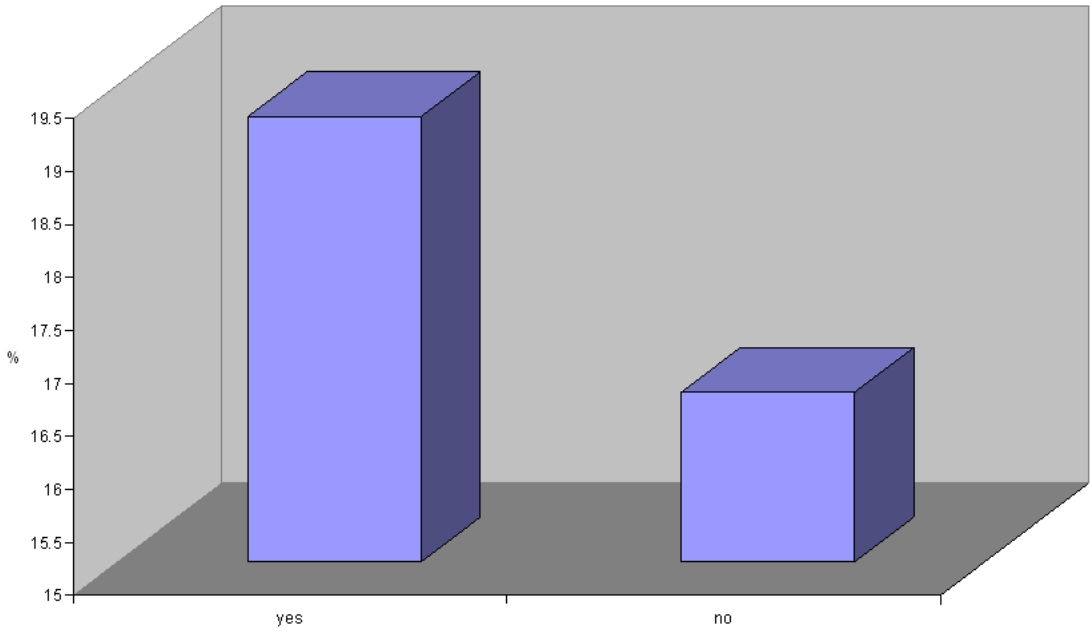
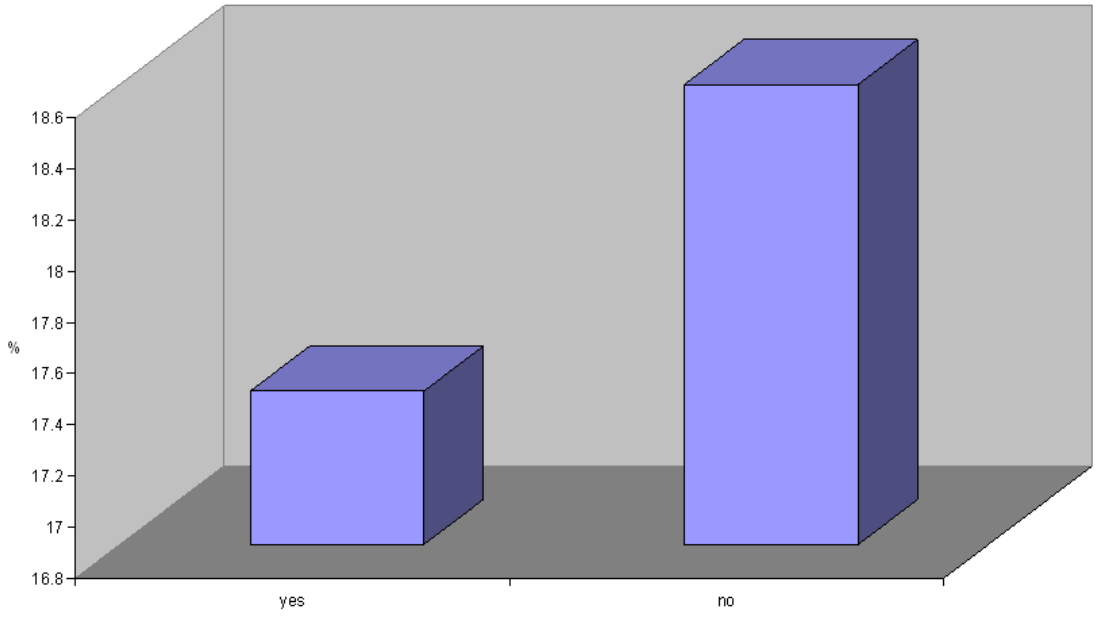


Figure (11) the mean and SD of HCY among cases according to Smoking

Table (11)The mean SD of HCY among cases according to Family history:

HCY / Family history	No	%	X ± SD	t	P
Positive	14	35	17.4 ± 13.5	0.25	> 0.05
Negative	26	65	18.6 ± 15.4		



(12)The mean and SD of HCY among cases according to Family history

Table (12)The mean and SD of HCY among cases according to sex :

HCY / sex	X +/- SD	t	P
Males N=14	**22.7+/- 5.7**	**0.61**	**< 0.05**
Females N=26	**17.2+/- 2.8**		

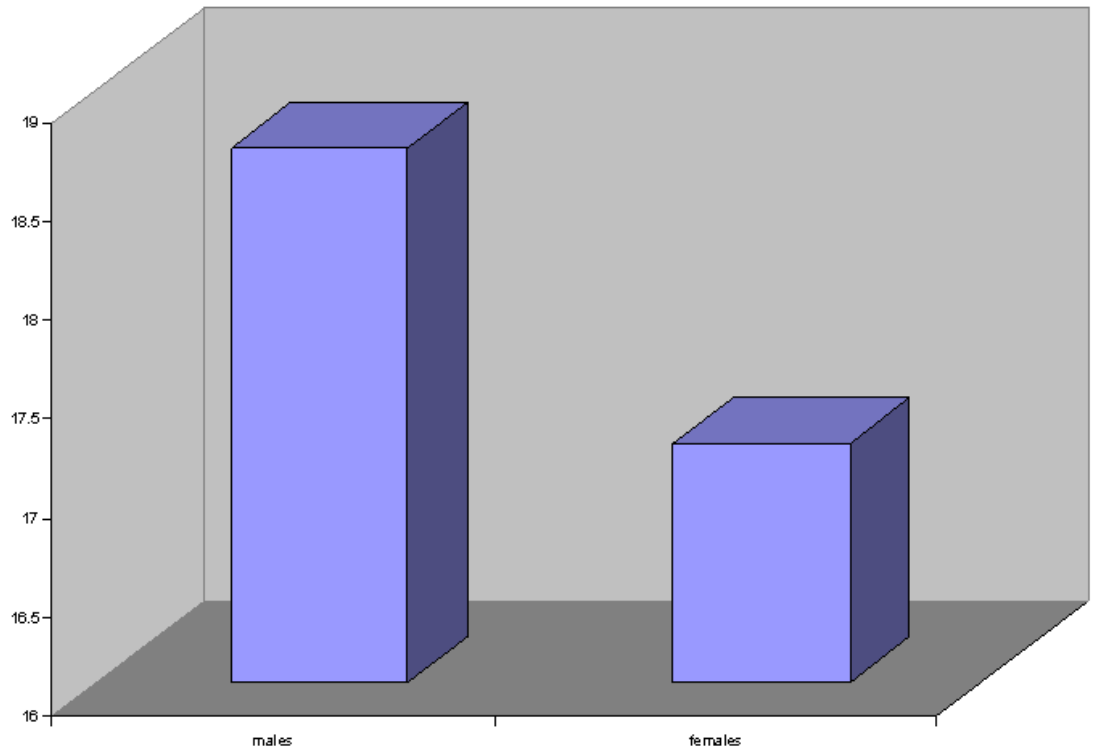


Figure (13) mean ± SD of HCY among cases according to sex :

Table (13) Mean and SD of HCY according to age in group (1)

HCY / Age	X±SD	t	P
< 50 n=18	15.1±13.3	0.59	< 0.05
>50 n=22	22±15.7		

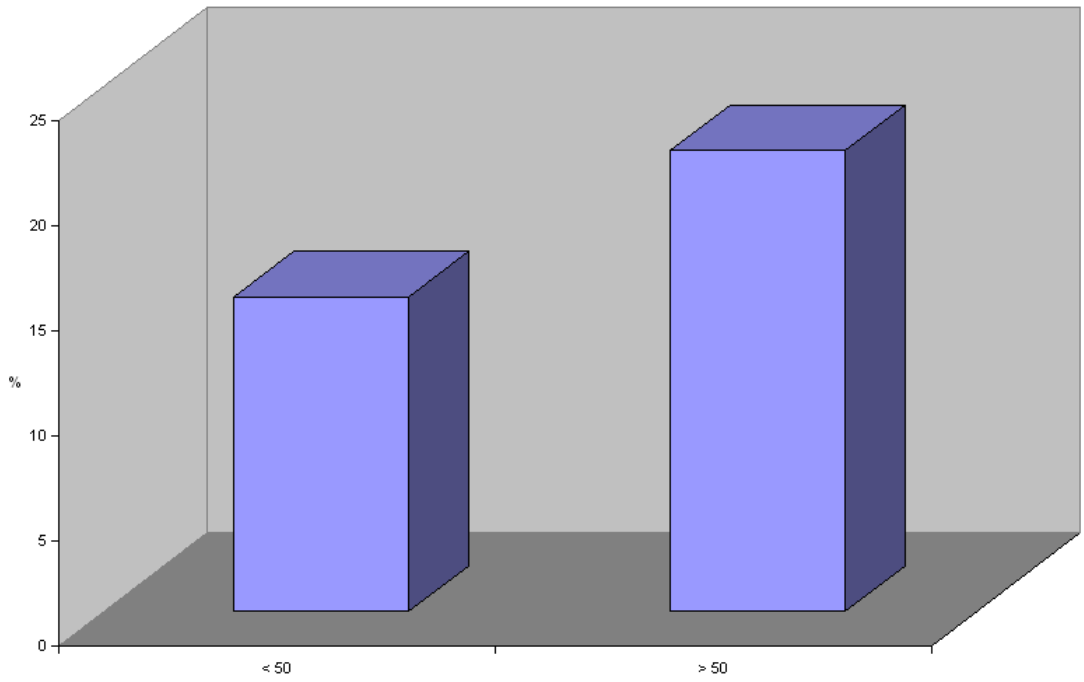


Figure (14) Means and SD of HCY according to age in group(1)

Table (13) Distribution of Complications Among cases :

Complications	number	%
No Complications	27	67.5
A. V block	5	12.5
VT	2	5
VF	2	5
HF	3	7.5
APE	1	2.5
Total	40	100

In this study there were 13 cases had a complicated hospital course, these cases were :

1 - Case number 1 who had acute inferior wall myocardial infarction, developed second degree A-V block in the first day of admission and was managed by cardiac pacing .

2 - Case number 2 was admitted with anterior wall MI and developed left sided heart failure on the second day and was managed.

3 - Case number 6 was admitted with anterior MI and developed features of acute pulmonary edema and was managed .

4 - Case number 8 was admitted with inferior wall MI and developed first degree heart block on the time of admission and it was reversed spontaneously after reperfusion therapy.

5 - Case number 13 had acute inferior wall MI and few hours after admission the patient developed severe chest pain followed by complete heart block, then asystole and died in the first day.

6 - Case number 17 was admitted with acute anterior wall MI and developed VF on the second day and was managed by direct current shock .

7 - Case number 20 was admitted with acute anterior wall MI and developed acute pulmonary edema , arrested, failed CPR and died in the second day.

8 - Case number 26 was admitted with acute inferior wall infarction and developed second degree heart block on the first day, and was managed by temporary artificial pacing.

9 - Case number 29 was admitted with acute inferior wall infarction and developed complete heart block on the second day, and was managed by temporary artificial pacing.

10 - Case number 31 was admitted with acute anterior wall infarction, and developed an attack of ventricular tachycardia on the second day. The attack was controlled by xylocaine.

11 - Case number 34 was admitted with acute anterior wall infarction and developed ventricular fibrillation on the third day, arrested and died.

12 - Case number 37 was admitted with acute inferior wall infarction and developed attack of ventricular tachycardia on the first day and managed by direct current shock.

13 - Case number 40 was admitted with acute anterior wall infarction and developed features of left sided heart failure on the forth day of admission.

Results