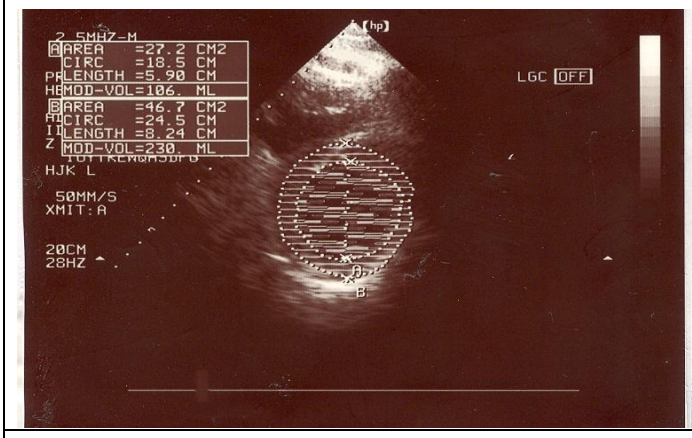
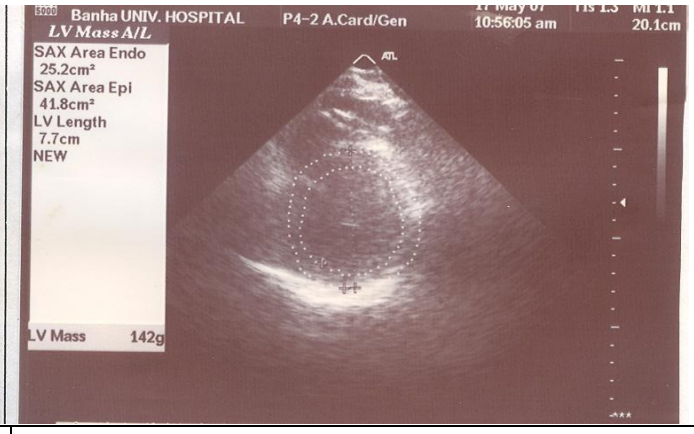
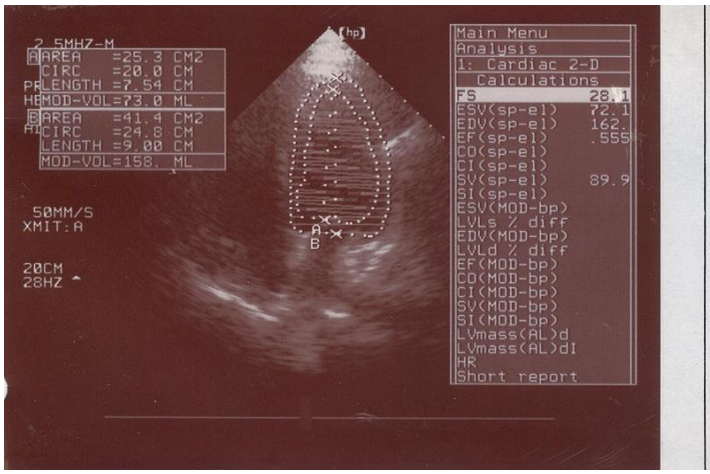
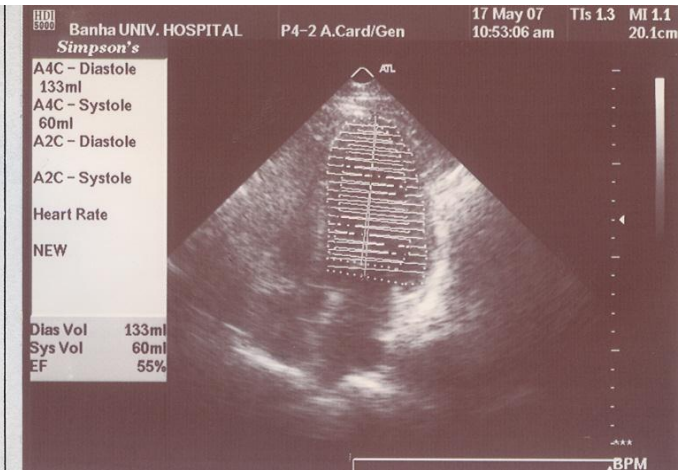
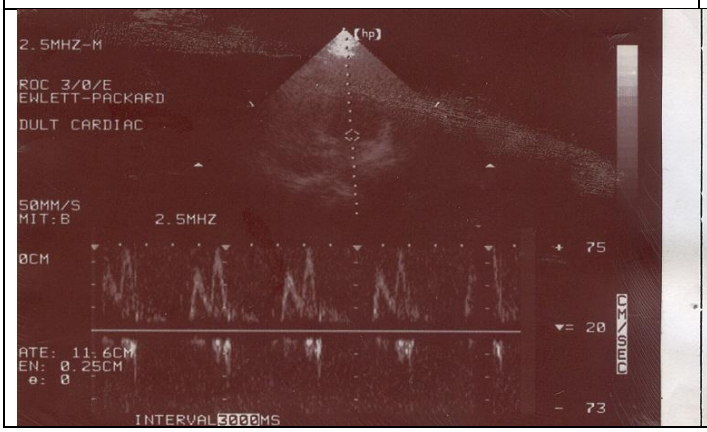
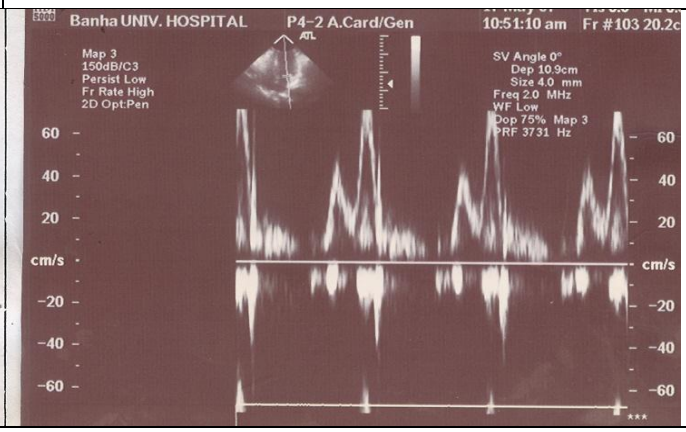
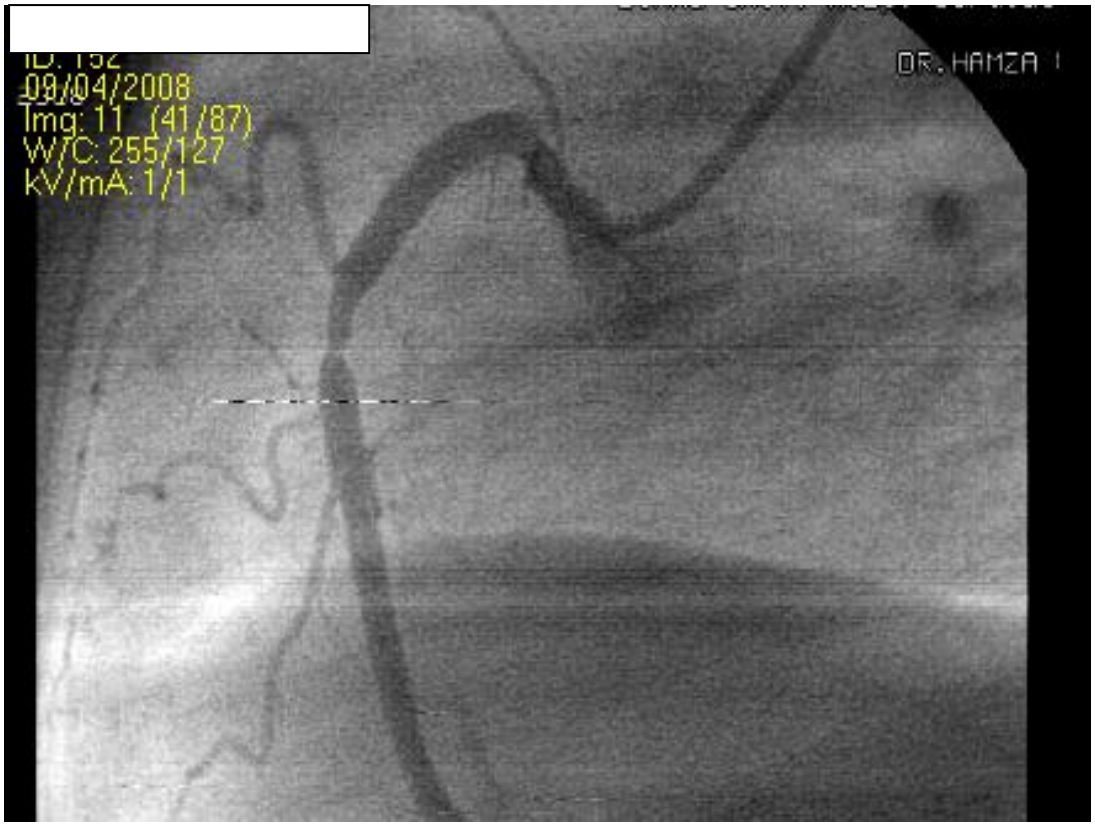
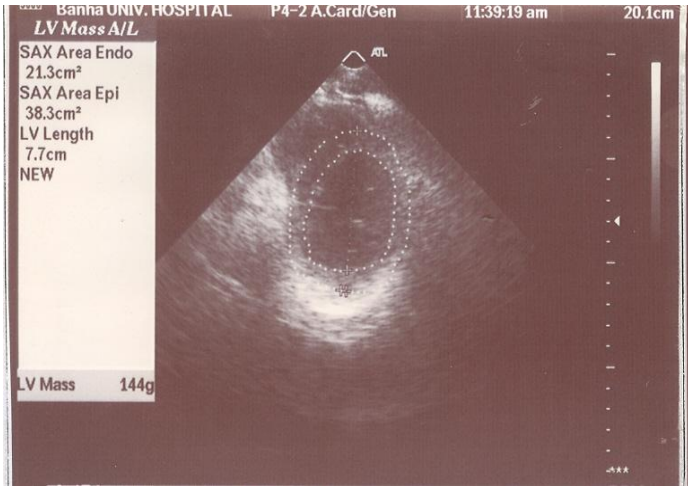
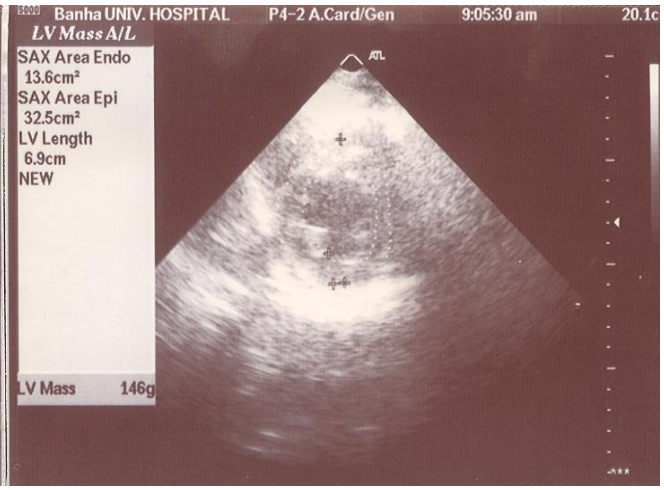
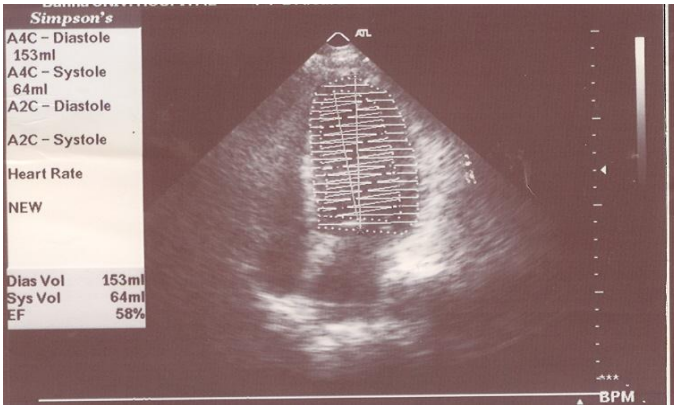
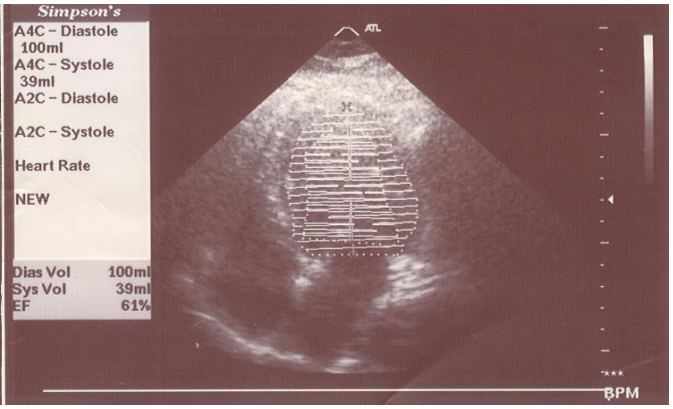
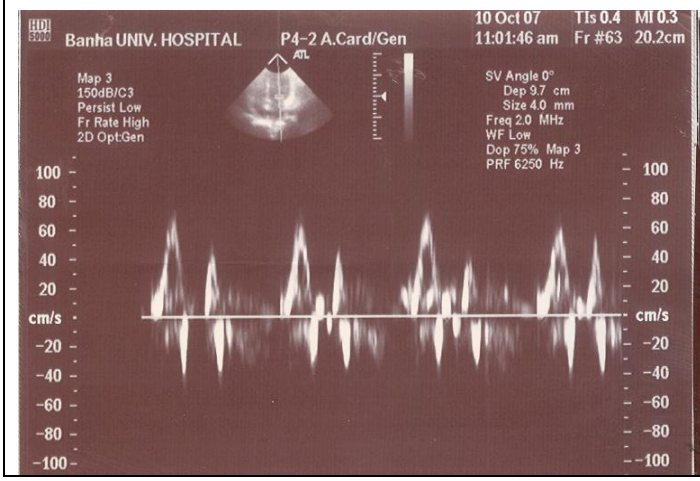
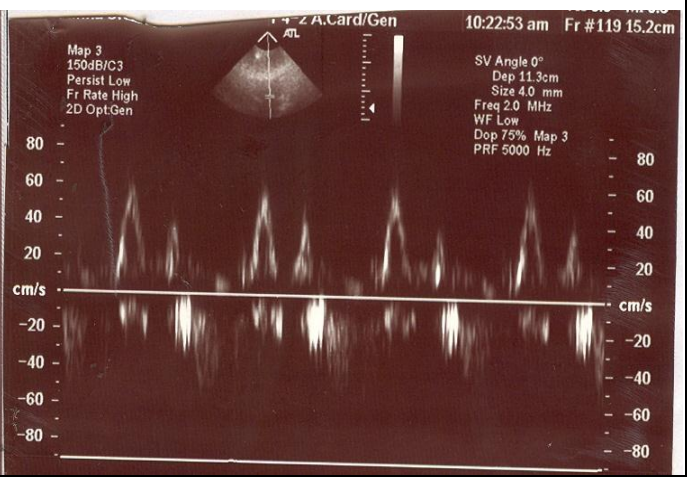
Cases of group C

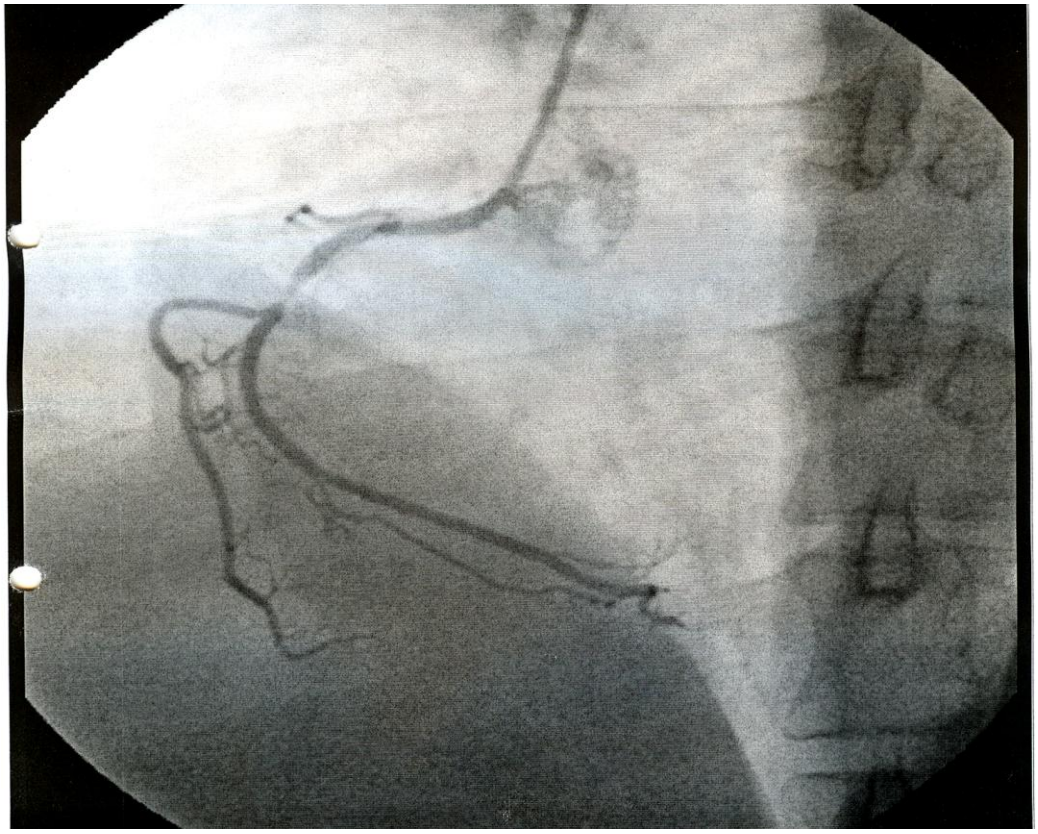
First assessment	Second assessment
LVMI=60 gm/m²	LVMI=64 gm/m²
	
EDV=158 ESV= 73 EF%=55	EDV=133 ESV= 60 EF%=55
	
Diastolic function: normal	Diastolic function: grade 1
	



(Case no. 2) Female patient, 60y old, DM presented with inferior MI and received SK.
Echo : LVMI and systolic function is normal but there is diastolic dysfunction.
Angio: lesion about 80% of the RCA with TIMI grade 3.
Clinical follow up: normal.

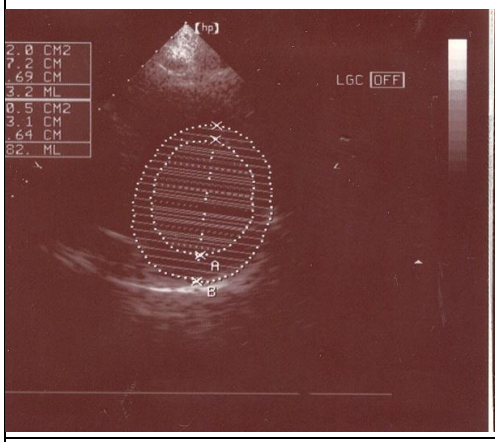
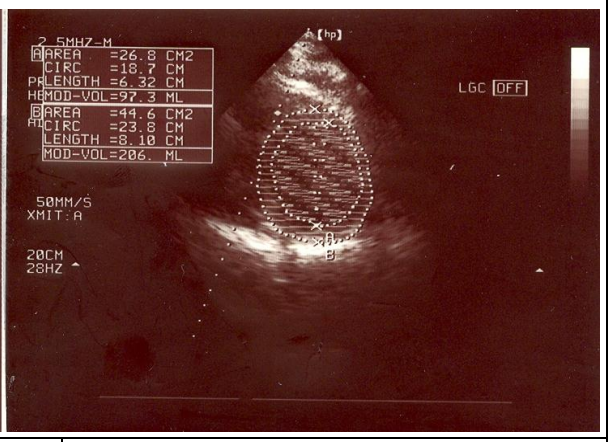
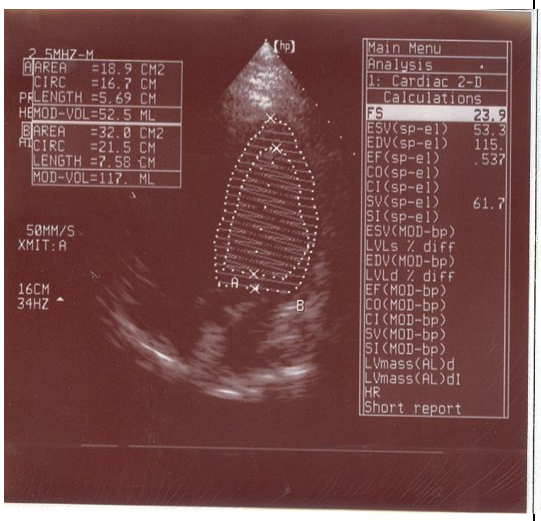
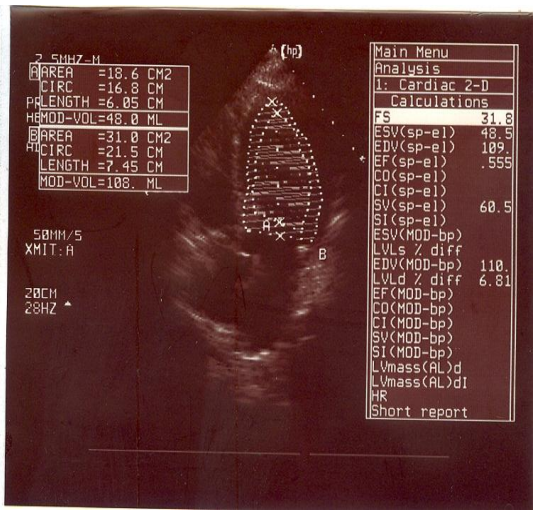
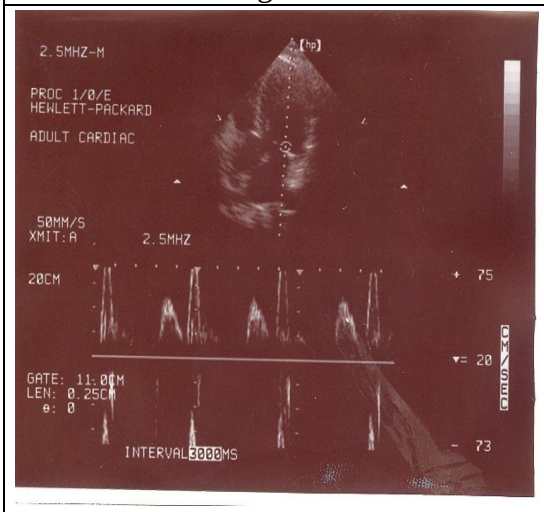
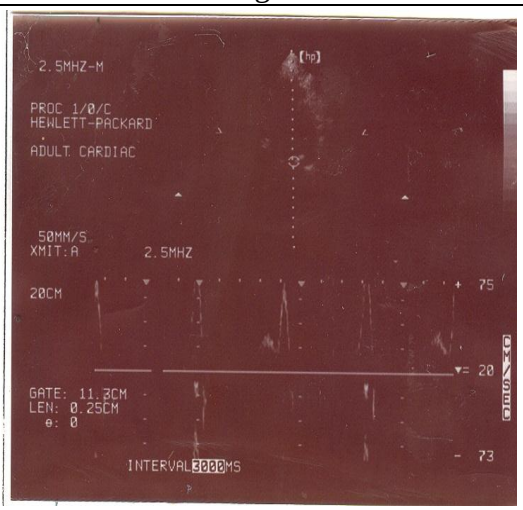
Cases of group C

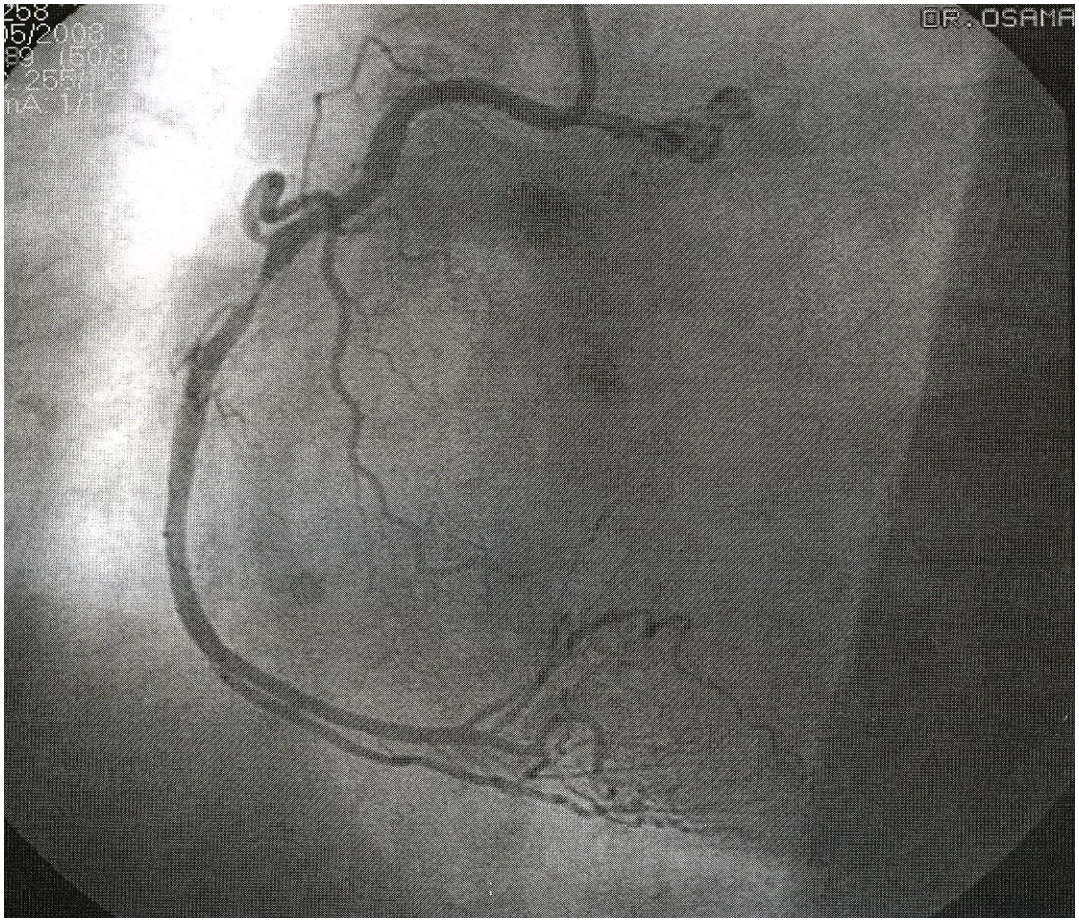
First assessment	Second assessment
LVMI=64gm/m²	LVMI=65gm/m²
	
EDV=153 ESV=64 EF%=58	EDV=100 ESV= 39 EF%=61
	
Diastolic function: normal	Diastolic function: normal
	



(case no. 57) male patient, 45y old, presented with inferior MI but didn't receive SK.
Echo : normal systolic function& diastolic dysfunction and LVMI .
Angio: subtotal occlusion of the midsegment RCA .
Clinical follow up: normal.

Cases of group C

First assessment	Second assessment
LVMI=57gm/m²	LVMI=57 gm/m²
	
EDV=117 ESV= 52 EF%=55	EDV=108 ESV=48 EF%=55
	
Diastolic function:grade1	Diastolic function: grade1
	

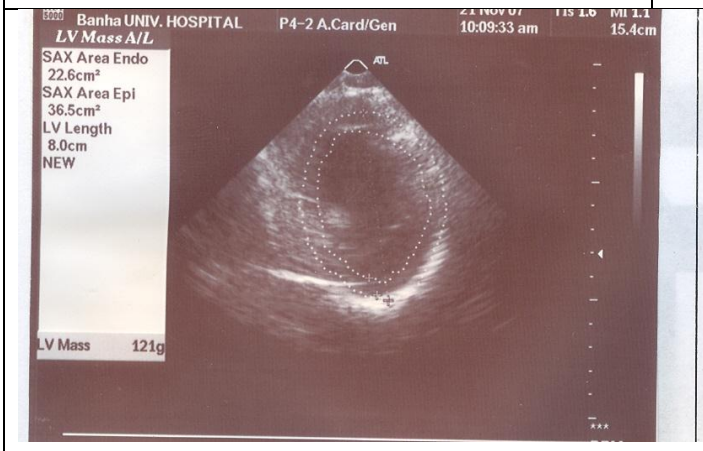
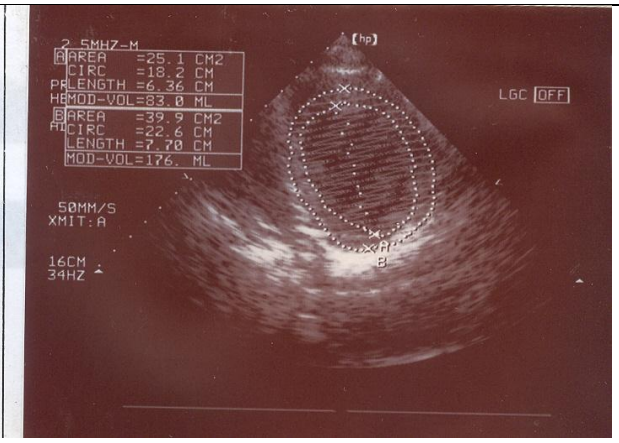
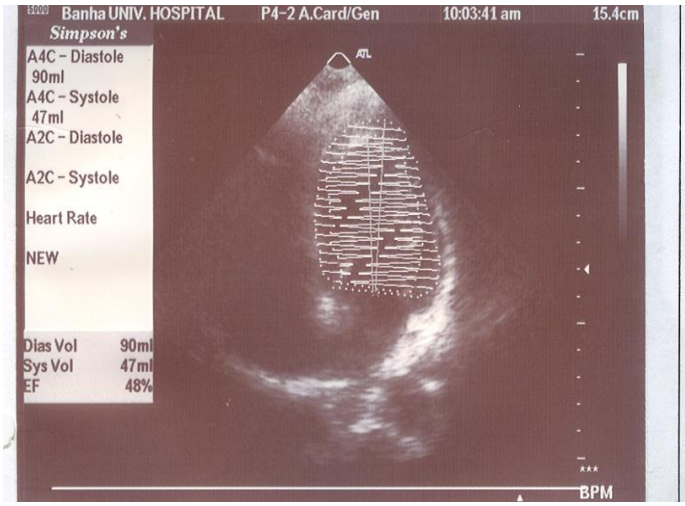
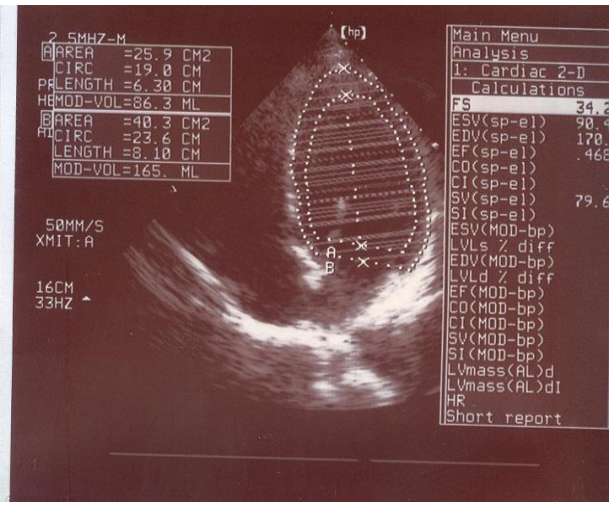
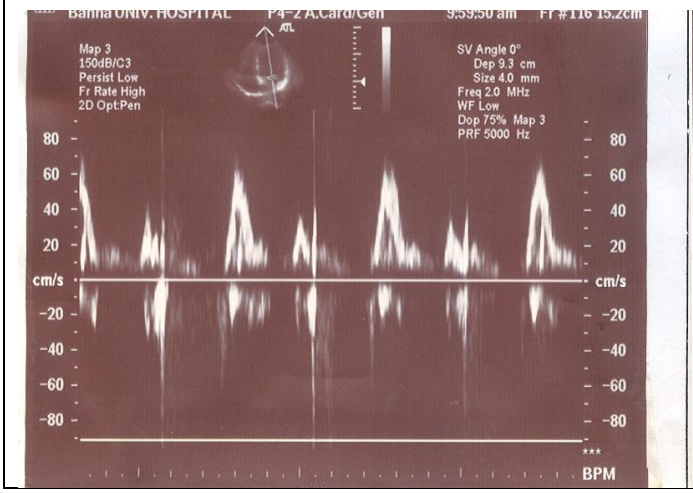
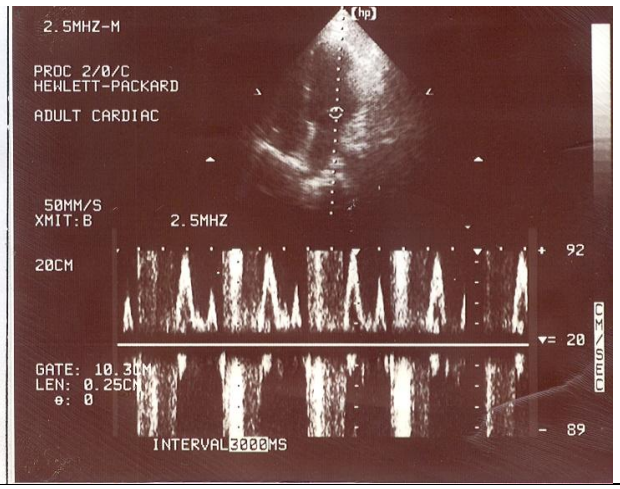


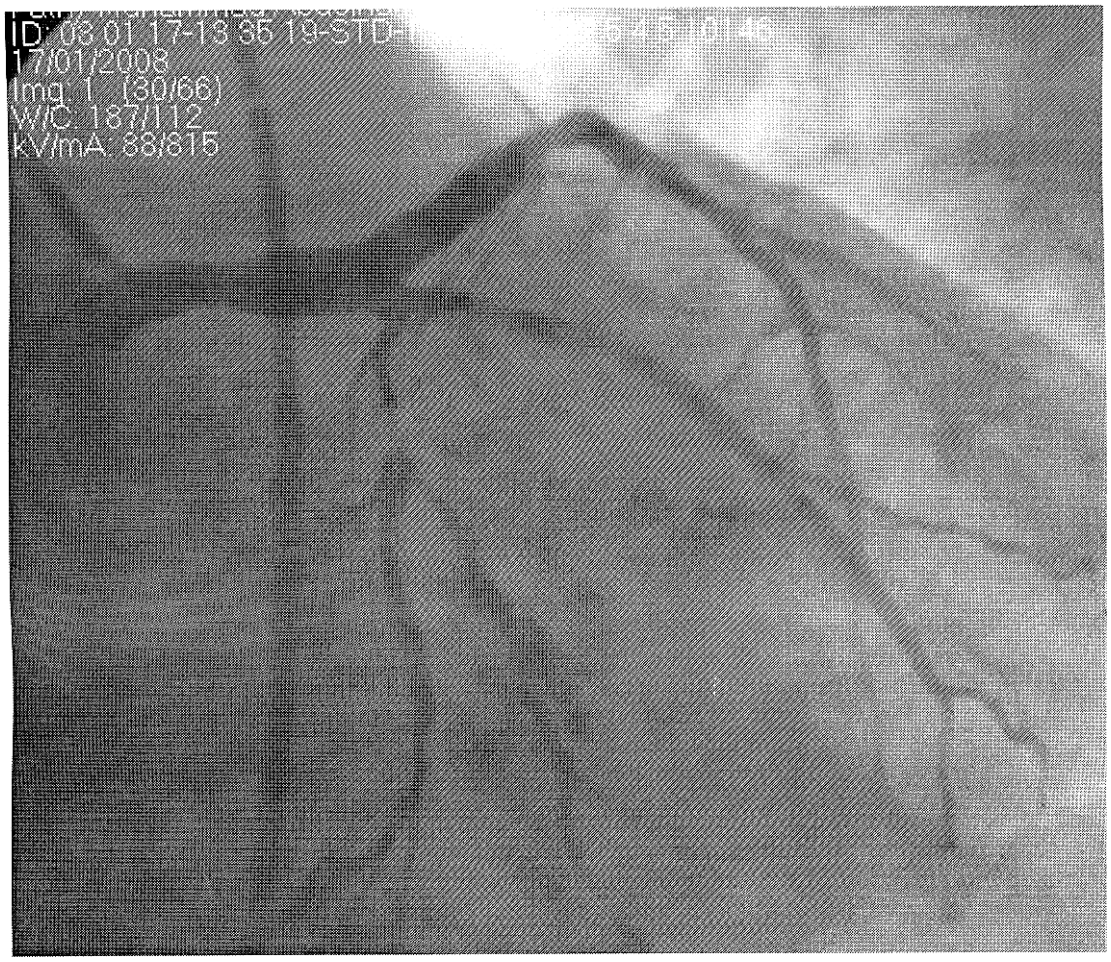
(Case no. 66) female patient, 67y old, HTN presented with inferior MI but didn't receive SK. ***Echo*** : normal systolic function& diastolic dysfunction and LVMI .

Angio: subtotal occlusion of the midsegment RCA

Clinical follow up: normal.

Cases of group C

First assessment	Second assessment
LVMI=50gm/m²	LVMI=45 gm/m²
	
EDV=90 ESV= 47 EF%=48	EDV=165 ESV= 86 EF%=46
	
Diastolic function: grade 3	Diastolic function: grade 3
	



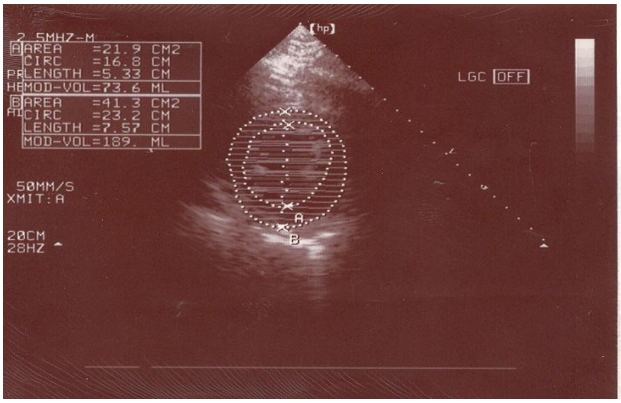
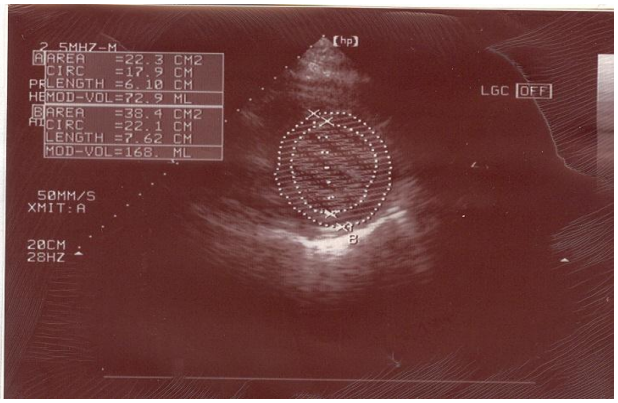
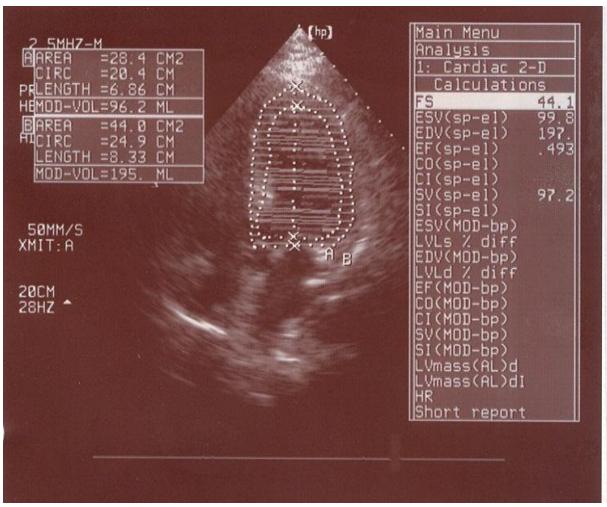
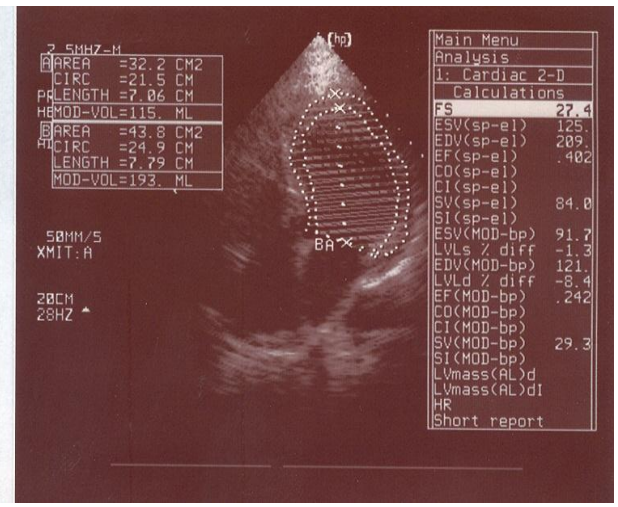
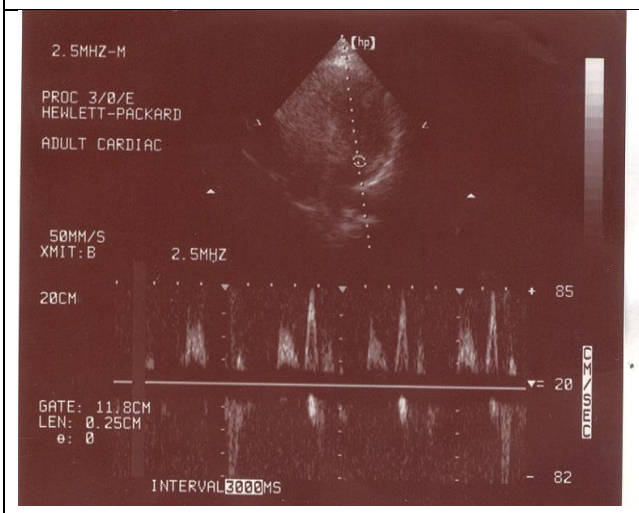
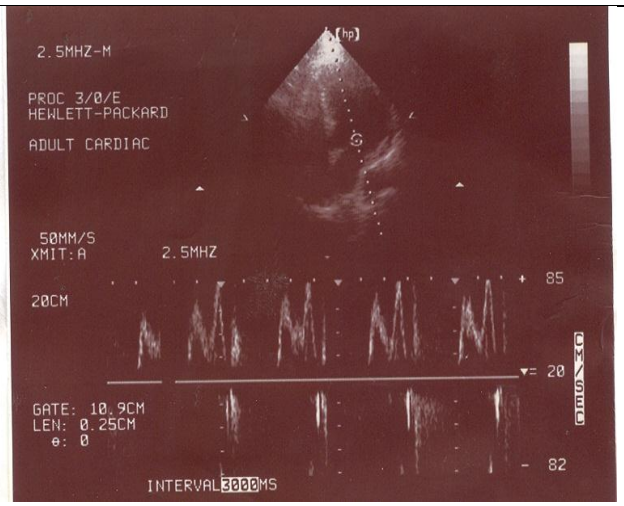
(case no.1) Male patient, 45y old, smoker presented with inferior MI and received SK.

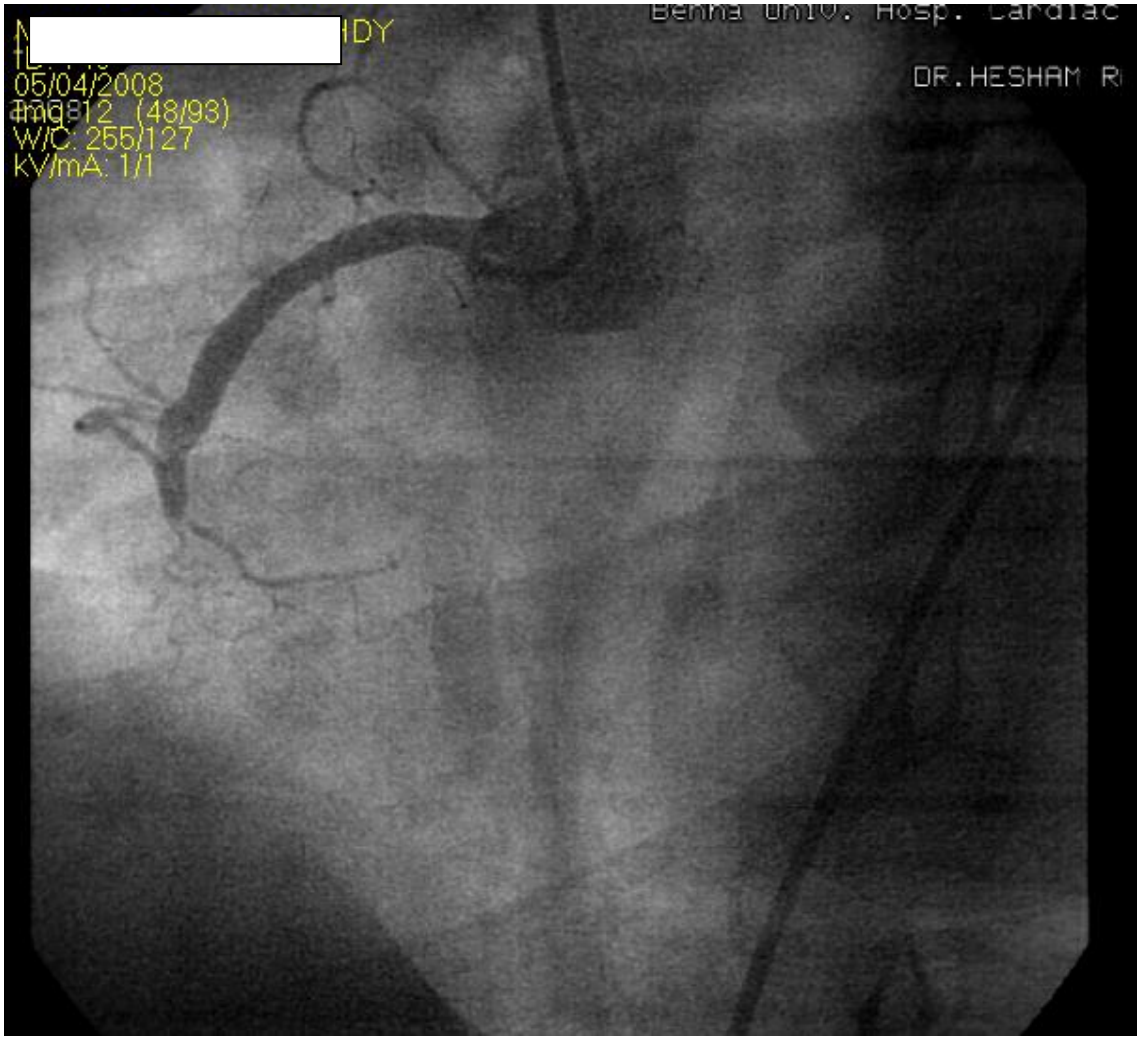
Echo : there is loss of the mass especially in the 2nd assessment , and there was fair systolic function and impaired diastolic dysfunction.

Angio: subtotal occlusion of the LCX with TIMI grade 3.

Clinical follow up : HF (NYHA II).

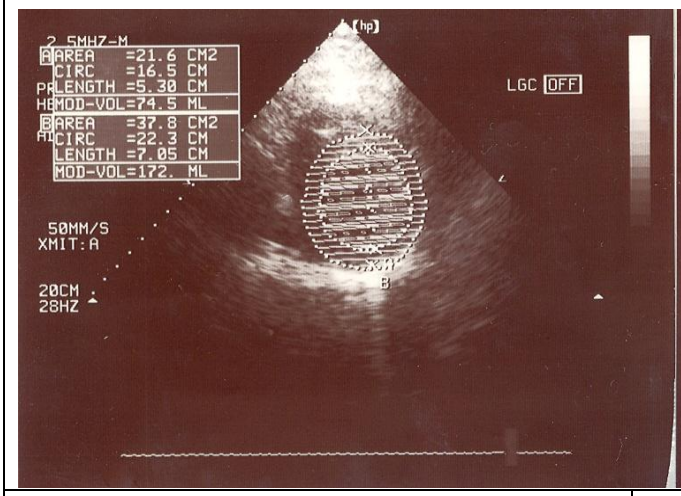
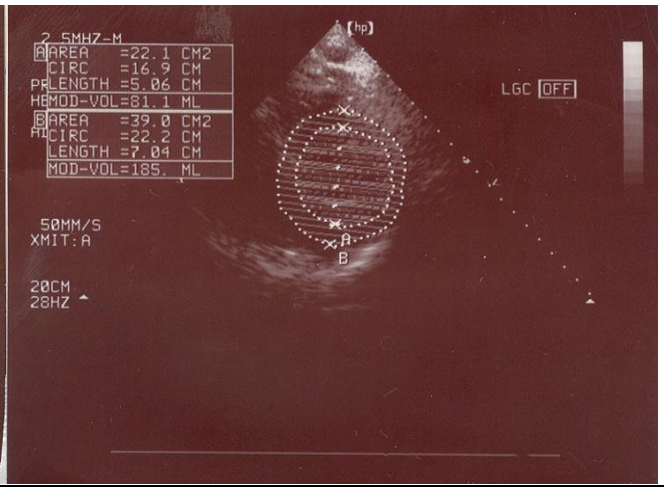
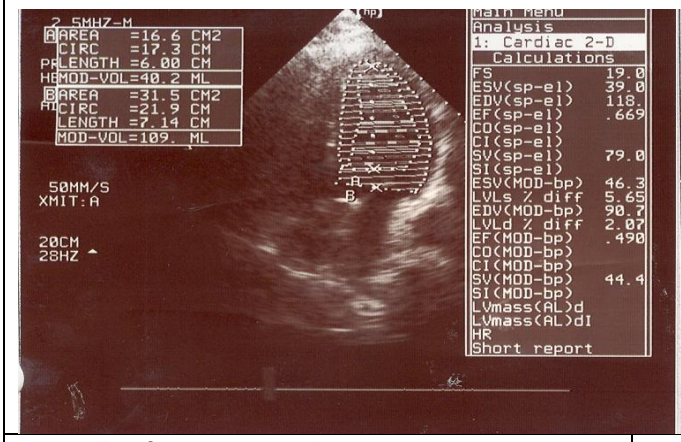
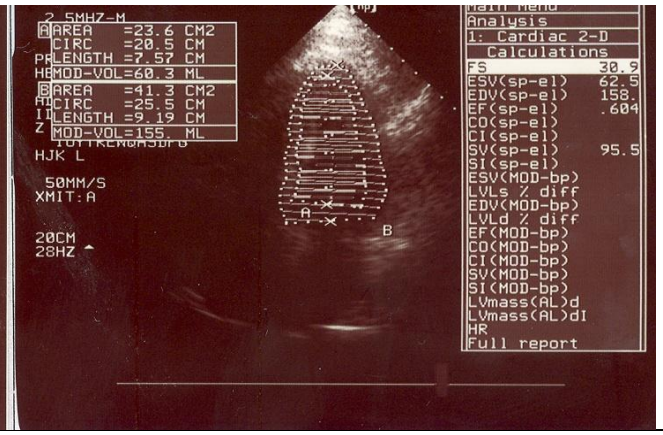
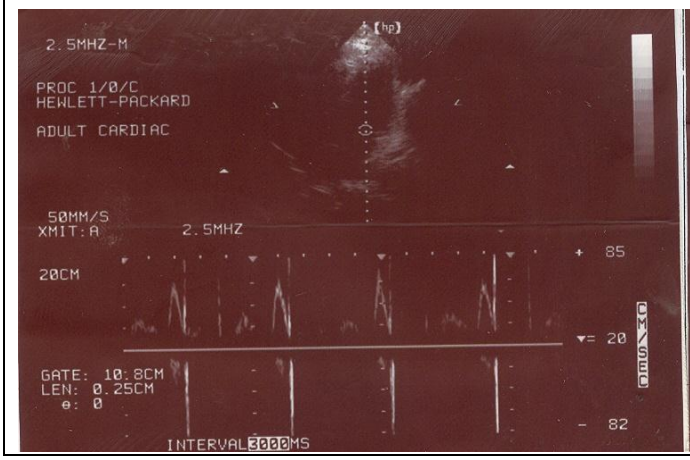
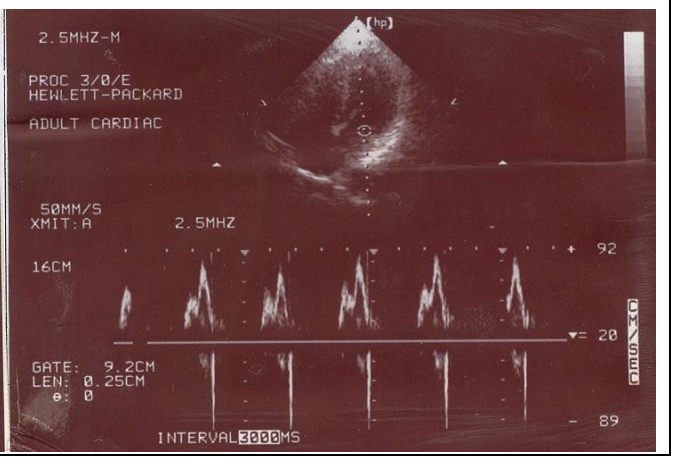
Cases of group C

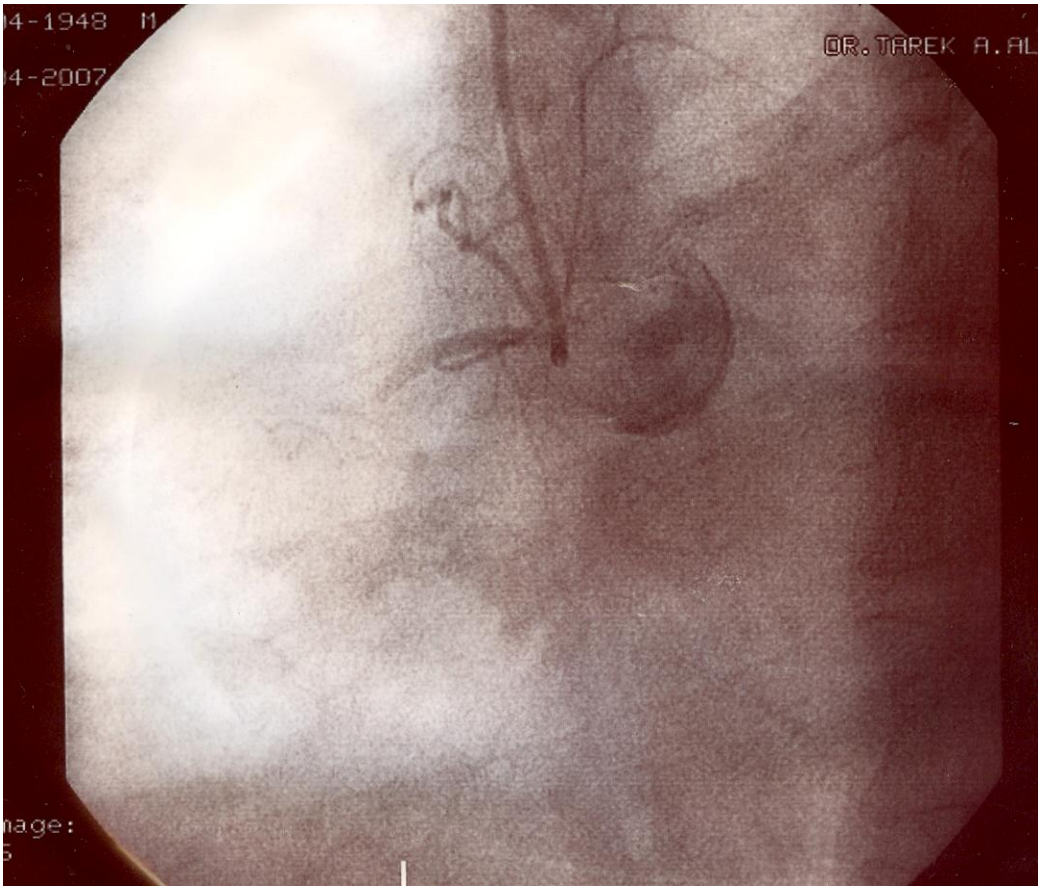
First assessment	Second assessment
LVMI=55 gm/m²	LVMI=45 gm/m²
	
EDV=195 ESV=96 EF%=49	EDV=193 ESV=115 EF%=40
	
Diastolic function: grade 1	Diastolic function: grade 2
	



(case no. 29)Female patient, 62y old, DM presented with inferior MI but didn't receive SK.
Echo :slightly reduced LVMI in the 2nd assessment and systolic function is decreased with diastolic dysfunction.
Angio: total occlusion of the RCA with TIMI grade 0.
Clinical follow up: CHB.

Cases of group C

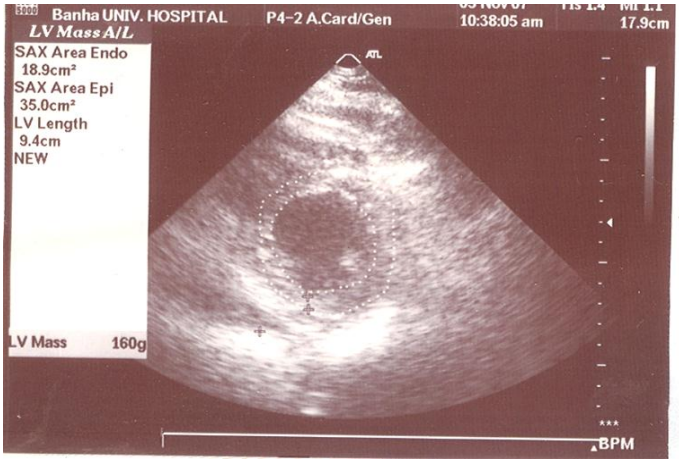
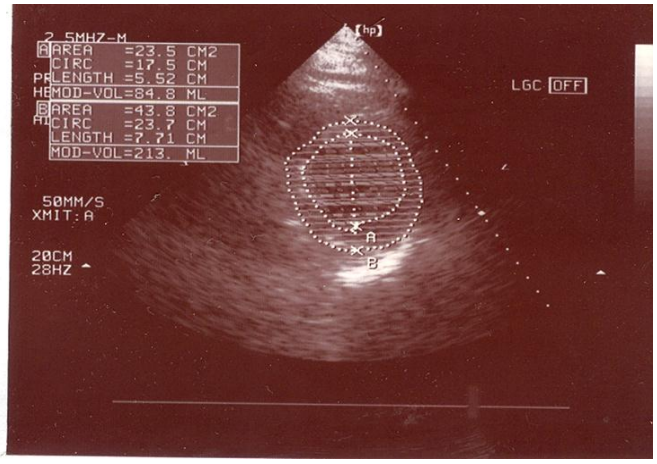
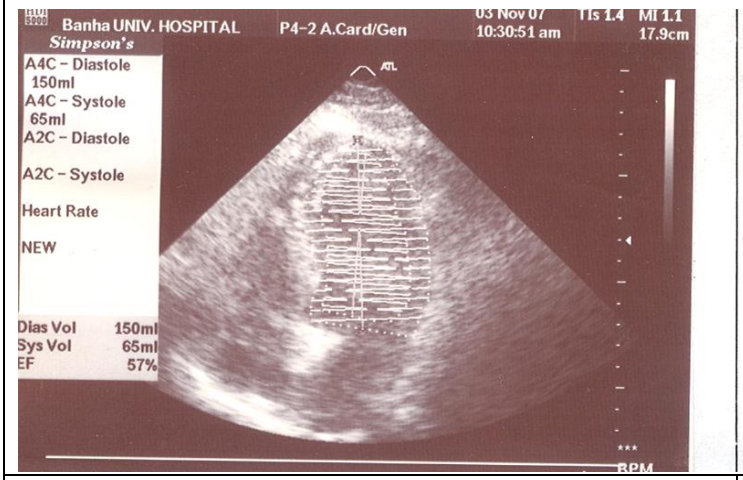
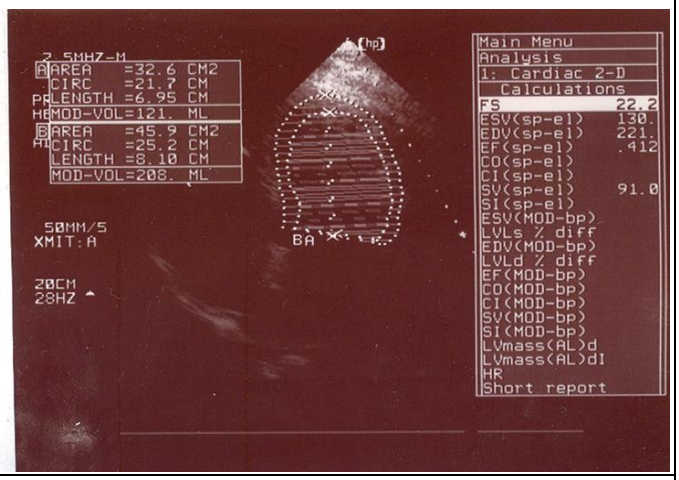
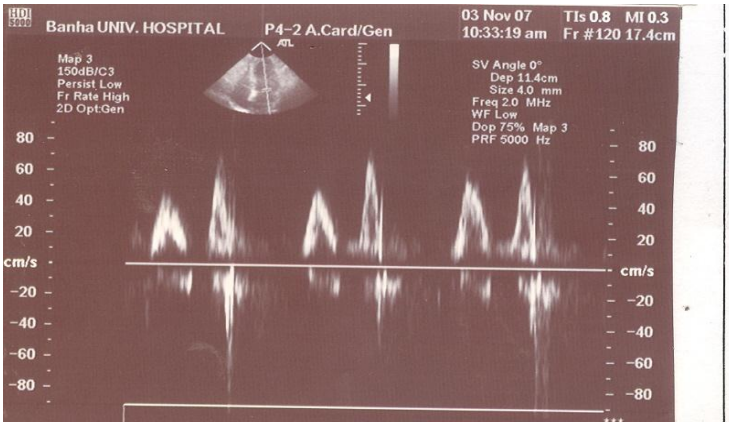
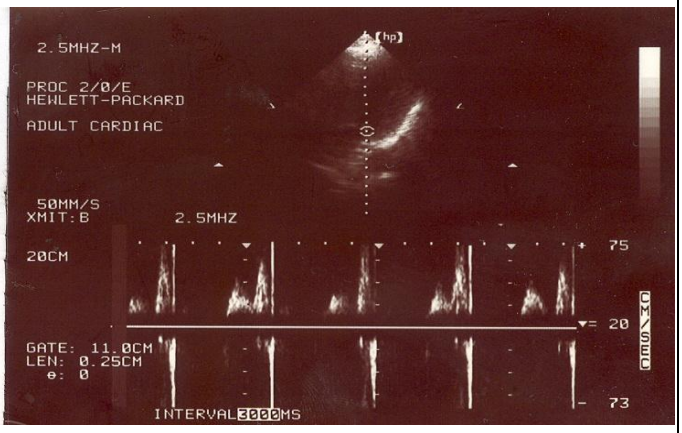
First assessment	Second assessment
LVMI=46gm/m²	LVMI=49gm/m²
	
EDV=109 ESV= 40 EF%=66	EDV=155 ESV=60 EF%=60
	
Diastolic function: grade 1	Diastolic function: grade 1
	

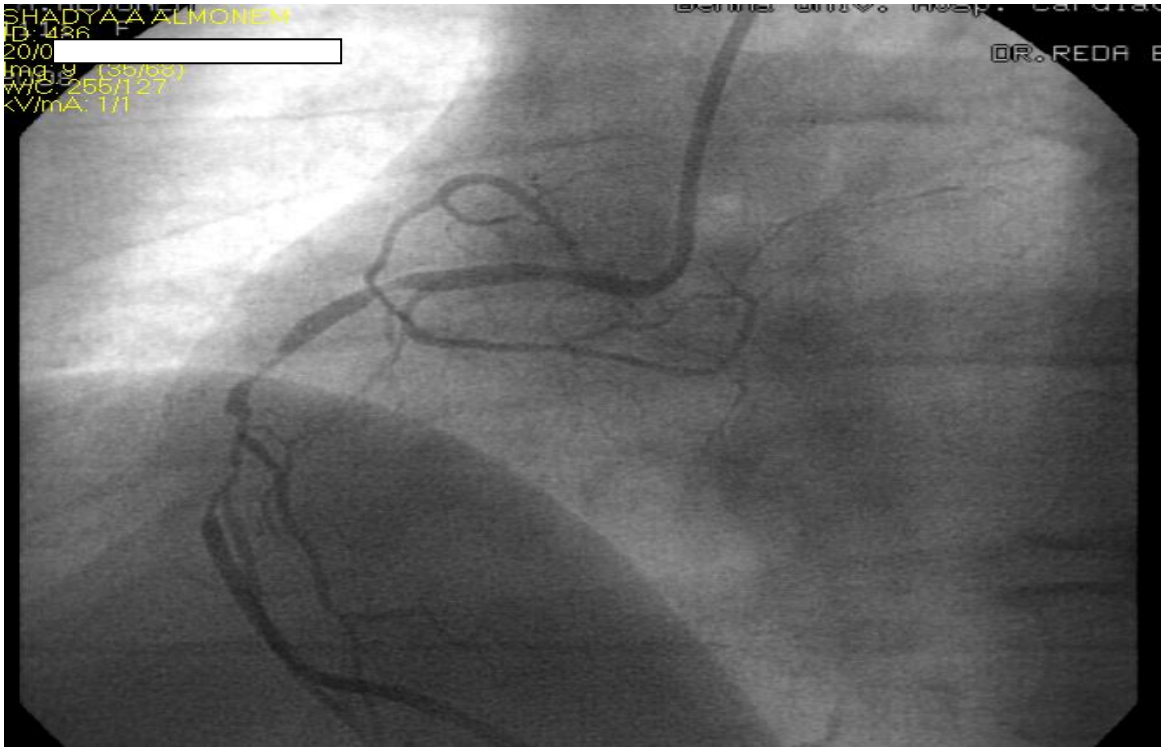


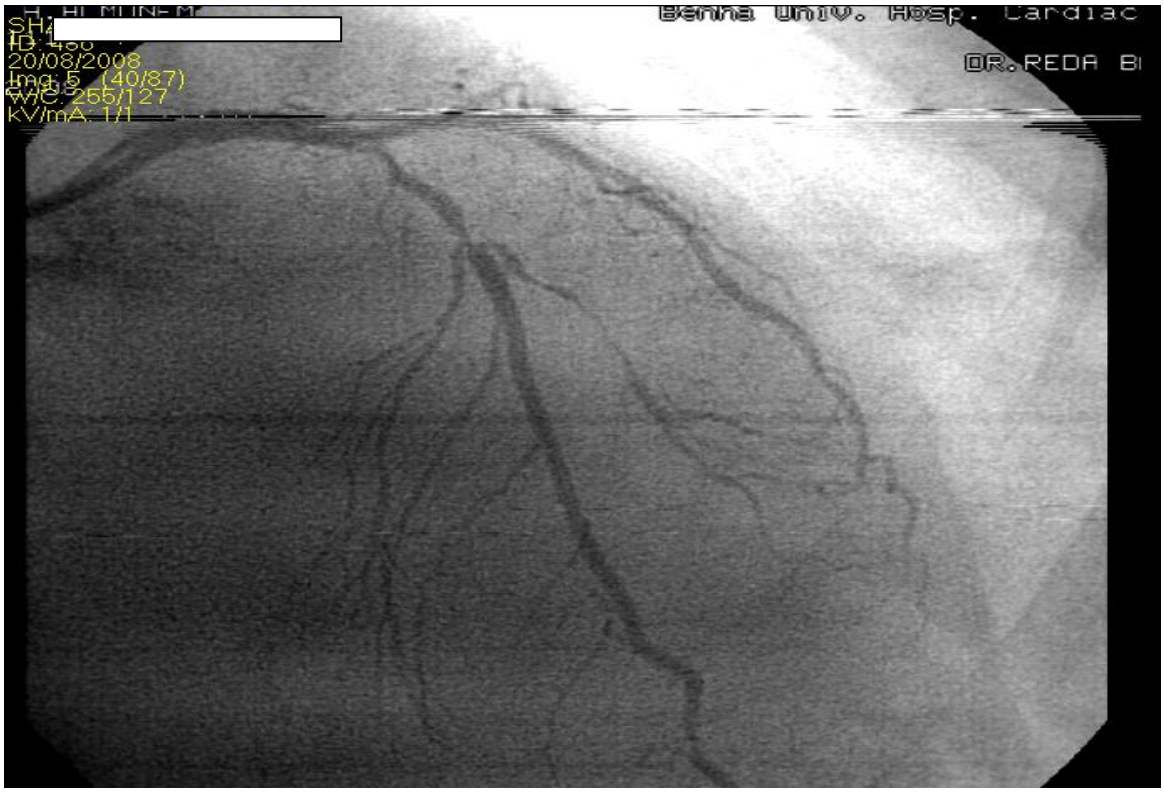
Cases of group C

(case no.49)Female patient, 66y old, presented with inferior MI but didn't receive SK.
Echo : normal systolic function , slightly decreased LVMI with diastolic dysfunction.
Angio: total occlusion of the RCA with TIMI grade 0.
Clinical follow up: normal.

Example of the prognostic value of LVMI when EF≥ 50%

First assessment	Second assessment
LVMI=58 gm/m²	LVMI=49 gm/m²
	
EDV=150 ml ESV=65 ml EF%=57%	EDV=208ml ESV=121 ml EF%=41%
	
Diastolic function: normal	Diastolic function: grade (1) dysfunction
	



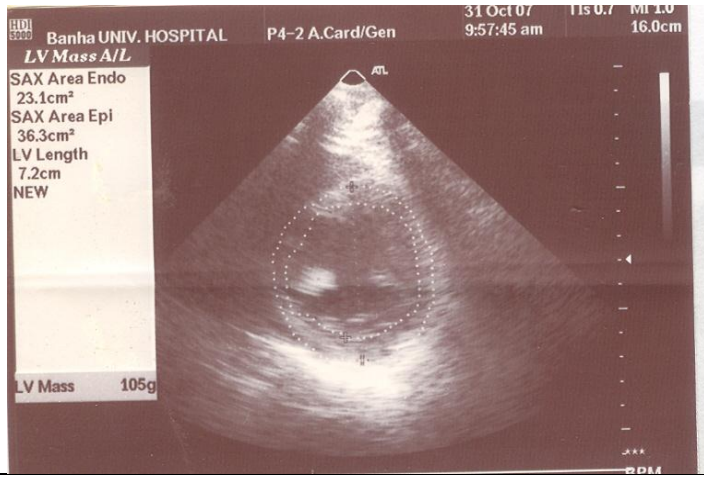
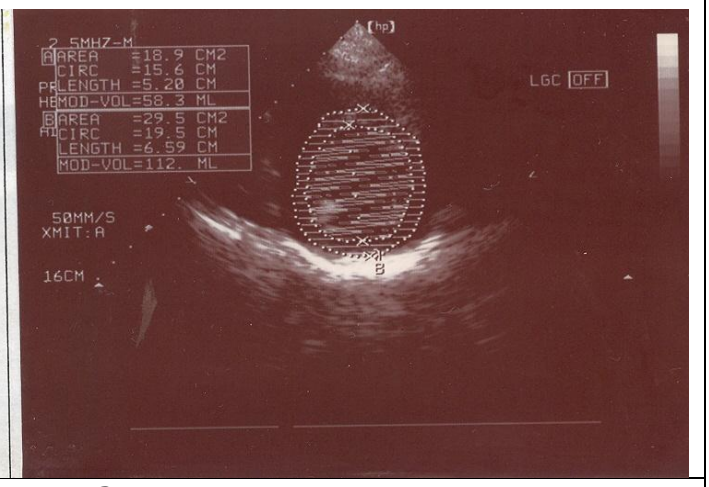
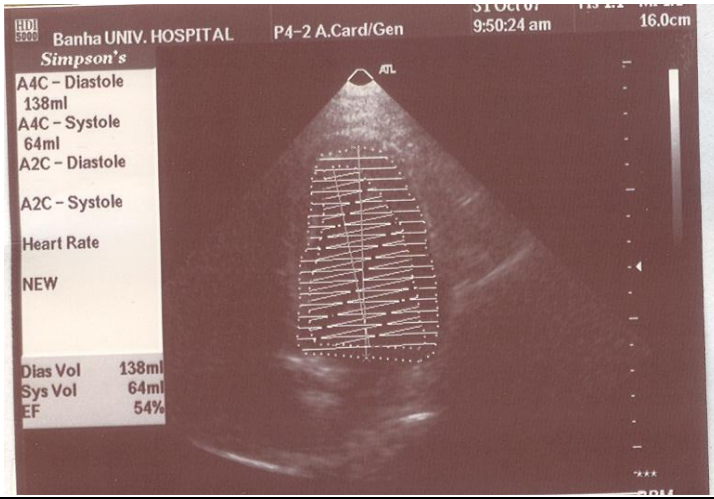
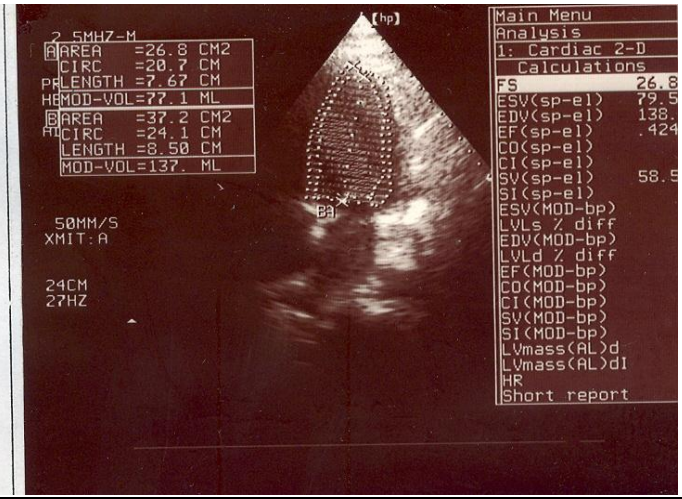
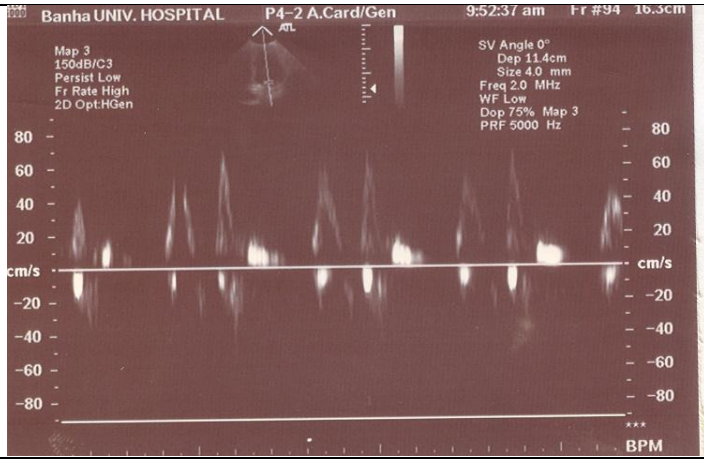
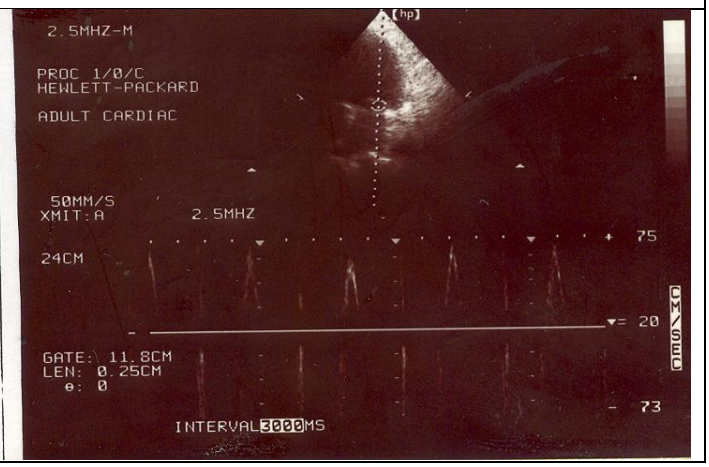


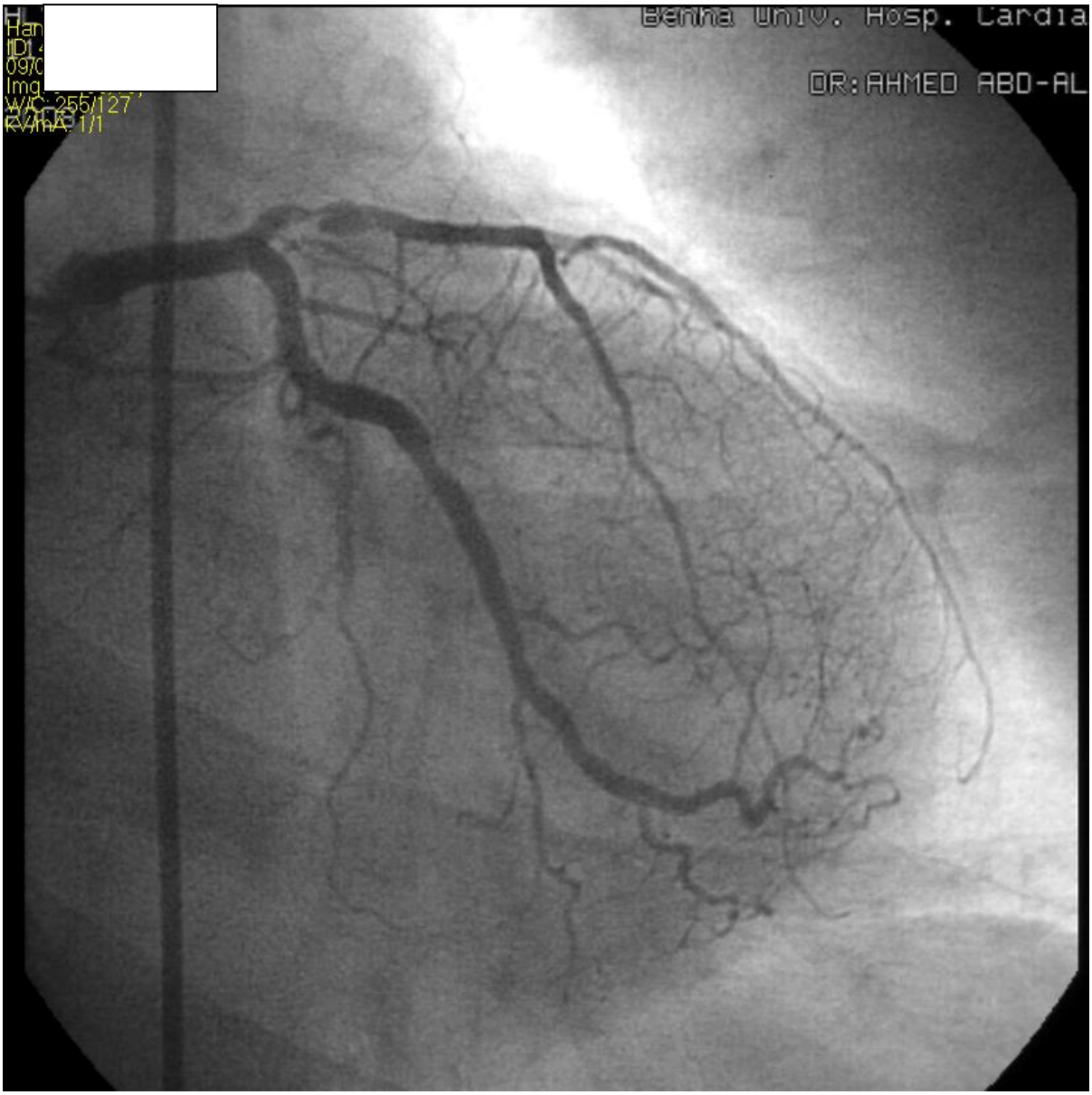
Case no. 30Male patient, 55 y , smoker presented with acute chest pain with anterior STEMI and received SK.

Echo: reduced LVMI with normal systolic and diastolic function in the 1st assessment with reduced LVMI, systolic and diastolic function in the 2nd assessment, with mild MR

Angio: subtotal LAD occlusion with antegrade TIMI grade (2)& 2 successive subtotal RCA occlusion lesions

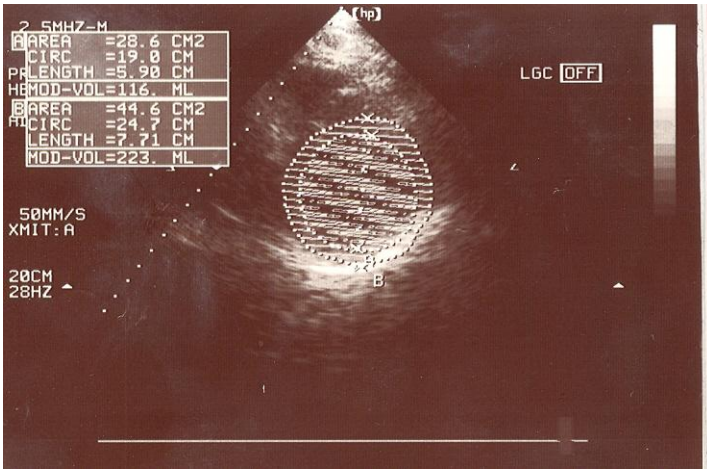
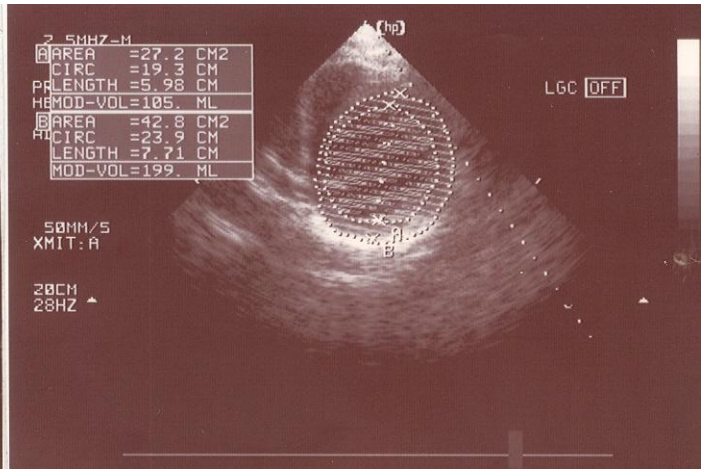
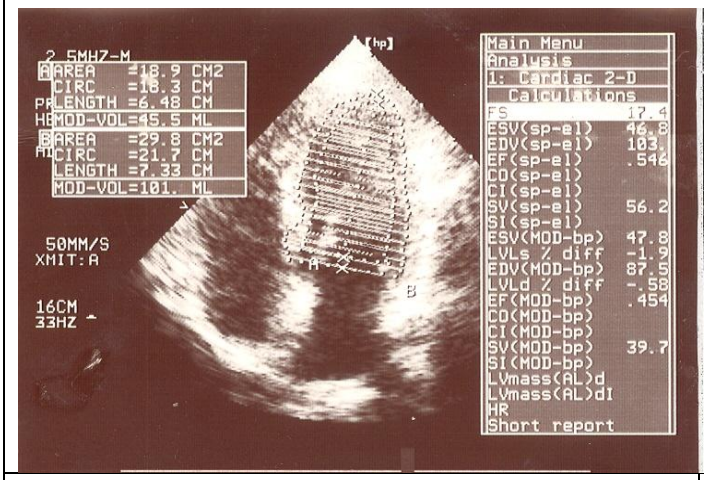
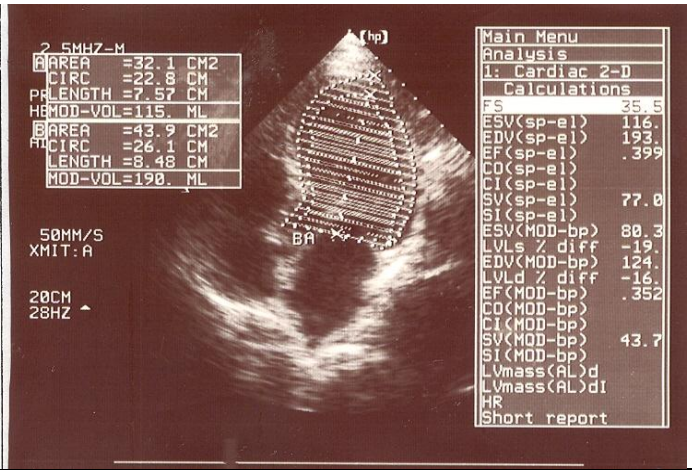
Example of the prognostic value of LVMI when EF≥ 50%

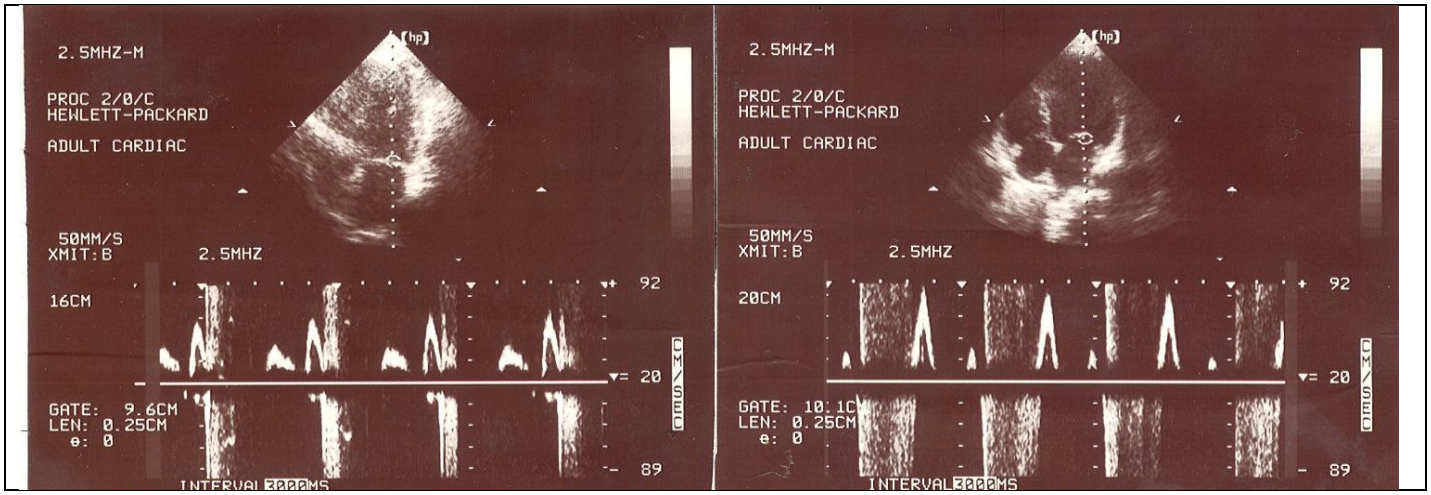
First assessment	Second assessment
LVMI=46.5gm/m²	LVMI=24 gm/m²
	
EDV=138 ESV = 64 EF%=54	EDV=137 ESV= 77 EF%=42
	
Diastolic function: normal	Diastolic function: grade 1 dysfunction
	

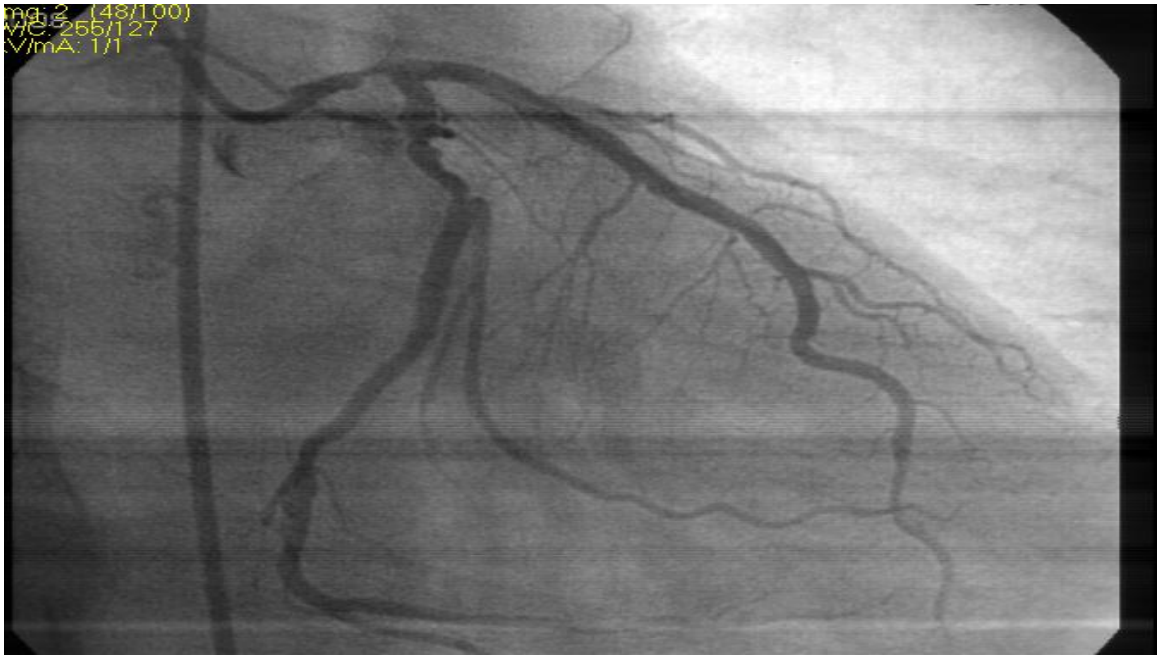


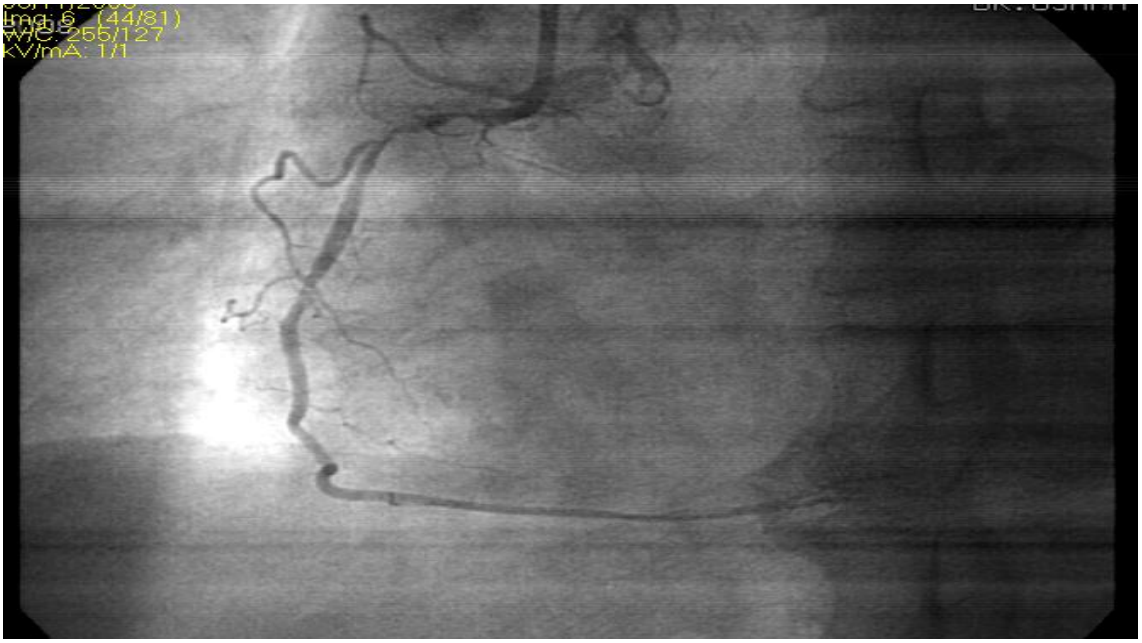
(Case no. 34) Male patient, 55 y, DM, HTN, smoker presented with acute chest pain with anterior STEMI and received SK.
Echo: reduced LVMI with normal systolic and diastolic function in the 1st assessment with reduced LVMI, systolic and diastolic function in the 2nd assessment, with mild MR
Angio: subtotal LAD occlusion with antegrade TIMI grade 3
clinical follow up: HF(NYHA III)

Example of the prognostic value of LVMI when EF≥

First assessment	Second assessment
LVMI=43.7 gm/m²	LVMI=38 gm/m²
	
EDV=101 ESV= 54 EF%=54	EDV=190 ESV= 115 EF%=39
	
Diastolic function: grade (1)dysfunction	Diastolic function: grade (3)dysfunction:


2.5MHZ-M
PROC 2/0/C
HEWLETT-PACKARD
ADULT CARDIAC
50MM/S
XMIT:B
2.5MHZ
16CM
92
20
89
GATE: 9.6CM
LEN: 0.25CM
e: 0
INTERVAL 8000MS
2.5MHZ-M
PROC 2/0/C
HEWLETT-PACKARD
ADULT CARDIAC
50MM/S
XMIT:B
2.5MHZ
20CM
92
20
89
GATE: 10.1CM
LEN: 0.25CM
e: 0
INTERVAL 8000MS





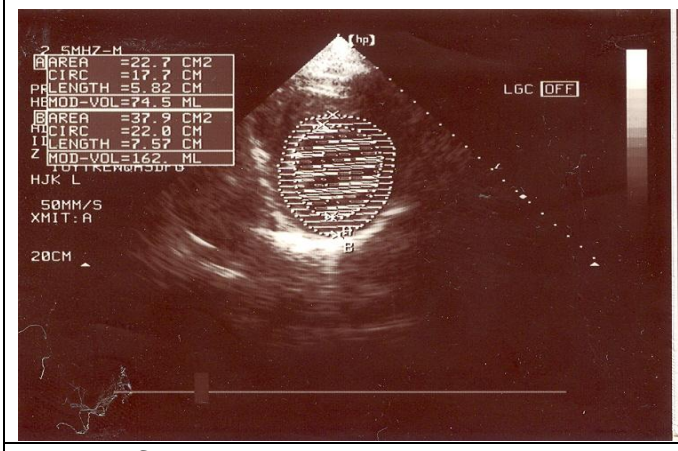
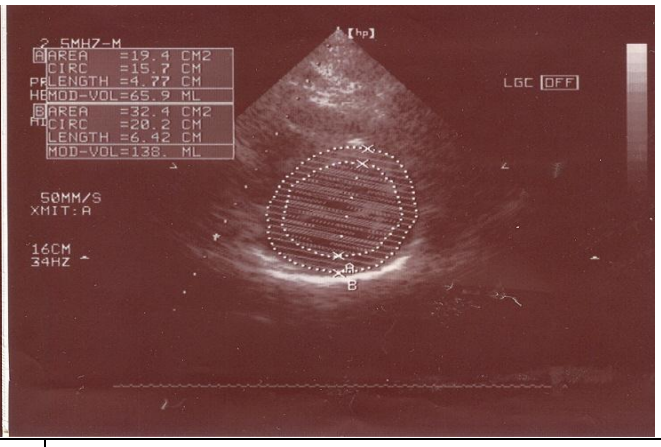
(case no. 5)Male patient, 55 y, smoker presented with acute chest pain, NSTEMI

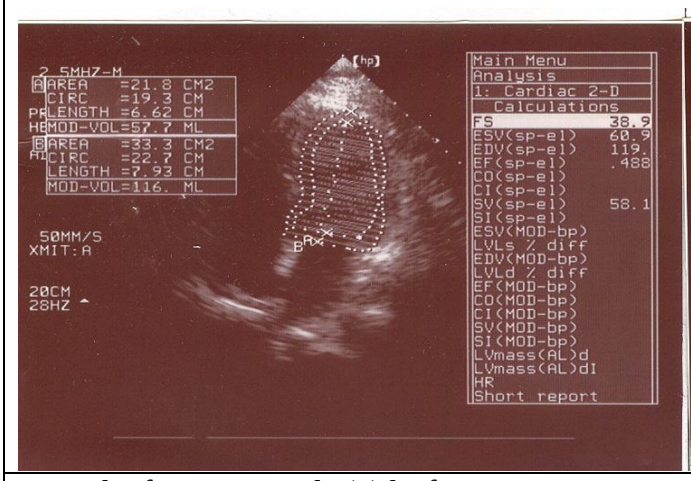
Echo: the 1st assessment shows significantly reduced LVMI with normal ESV, EDV , EF% and grade 1 diastolic dysfunction but in the 2nd assessment there was dilated ESV, LEDV and reduced EF%, with diastolic dysfunction, with mild MR

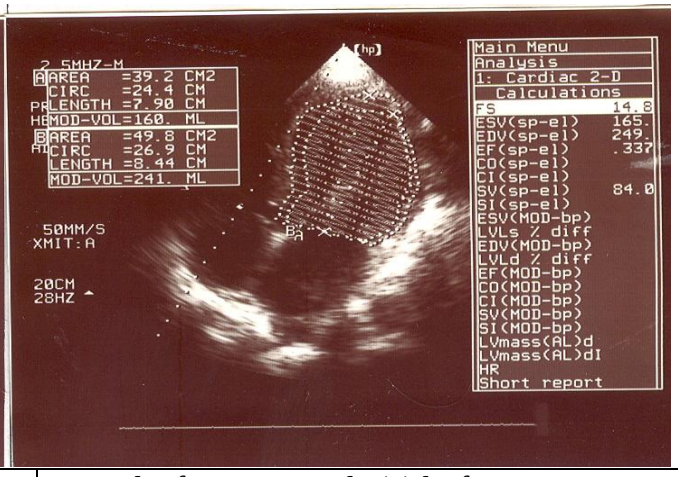
Angio: subtotal distal left main occlusion with antegrade TIMI grade 2 & proximal lesion about 70% in the LCX, subtotal occlusion of the proximal RCA.

Clinical follow up: HF (NYHA III)

Example of the prognostic value of LVMI when EF≥ 50%

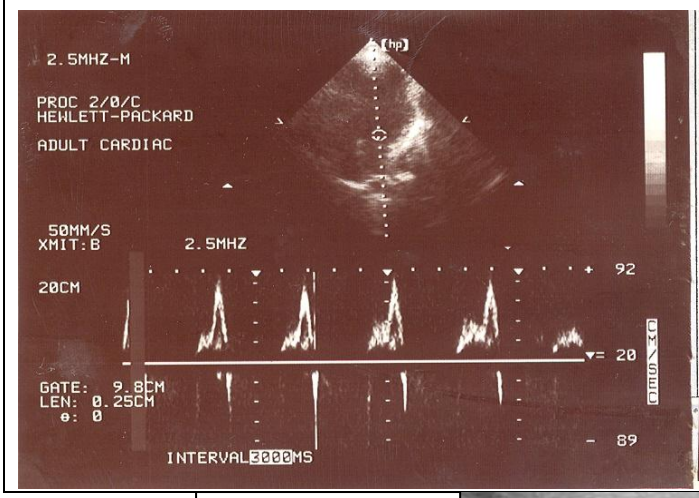
First assessment	Second assessment
LVMI=39 gm/m²	LVMI=32 gm/m²
	
EDV=116 ESV= 57 EF%=50	EDV=241 ESV= 160 EF%=33

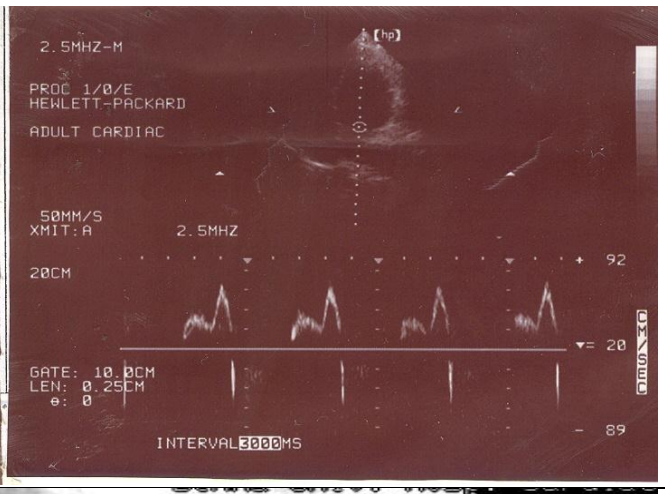


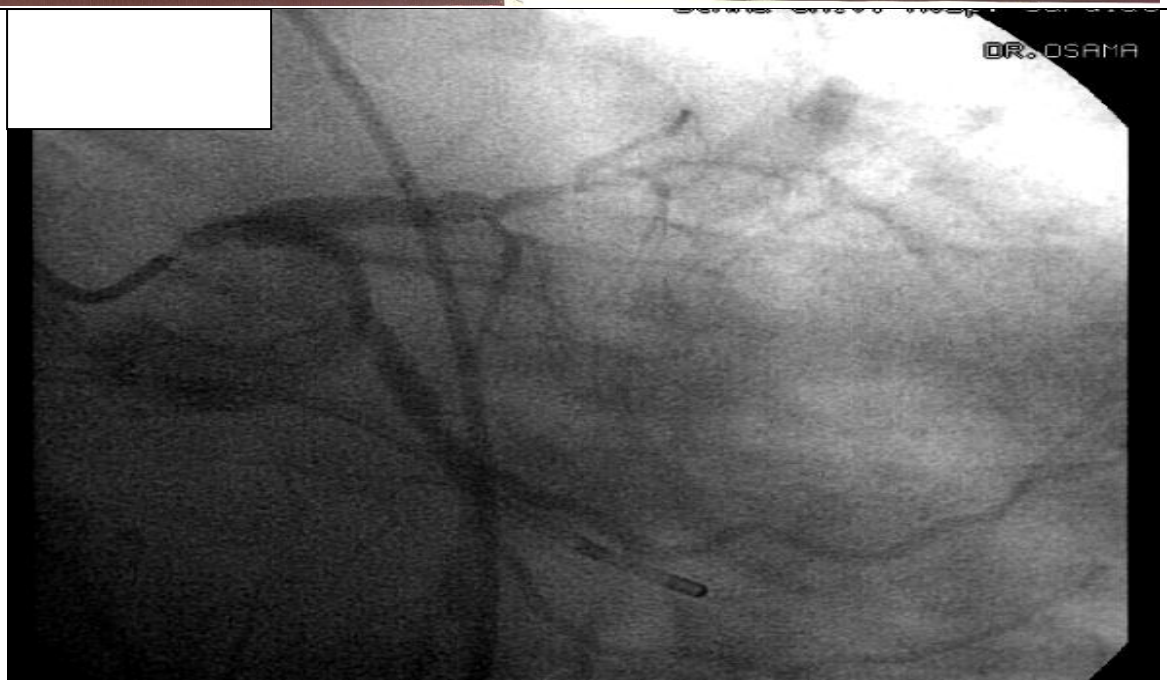


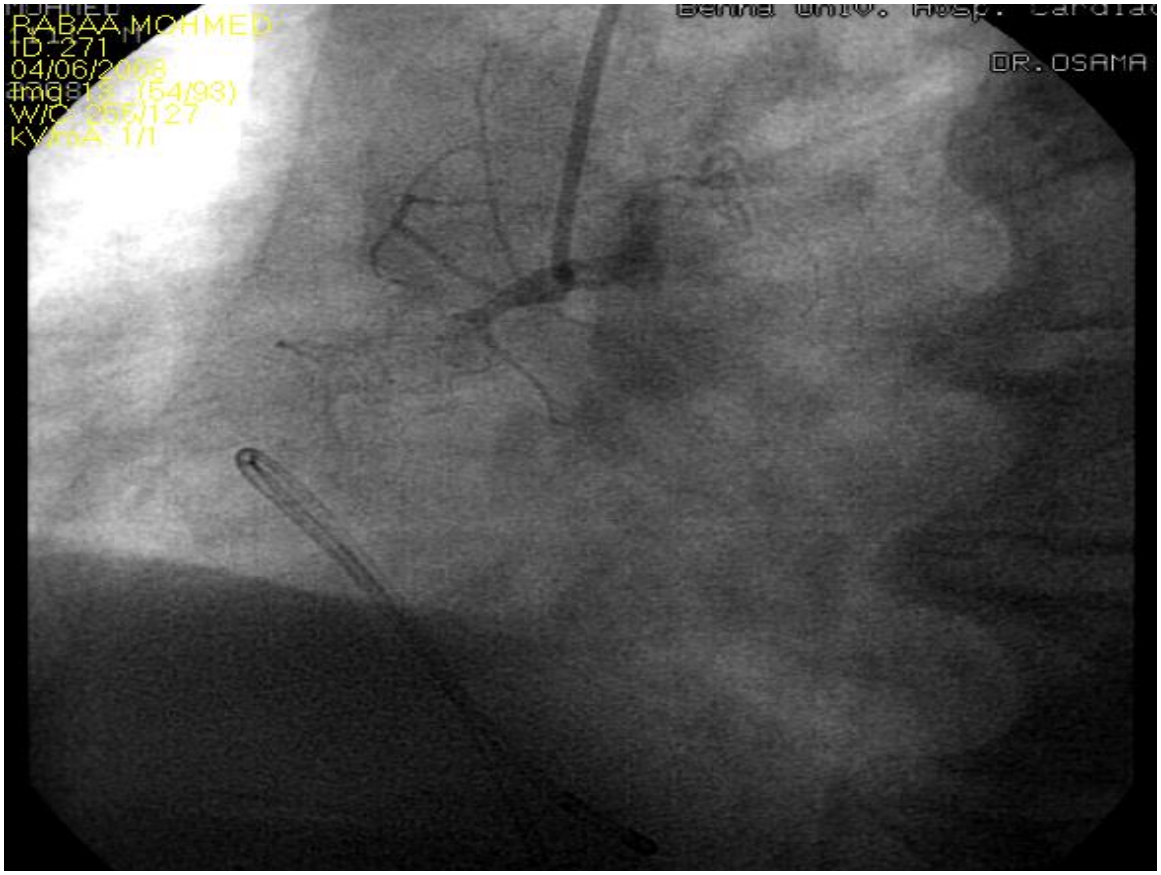
Diastolic function: grade (1)dysfunction

Diastolic function: grade (1)dysfunction









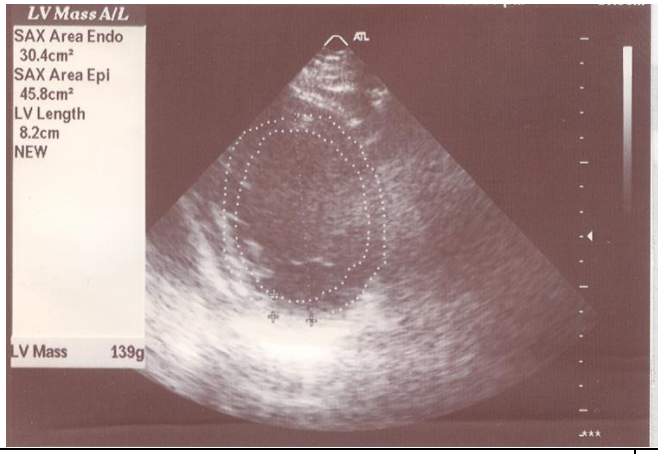
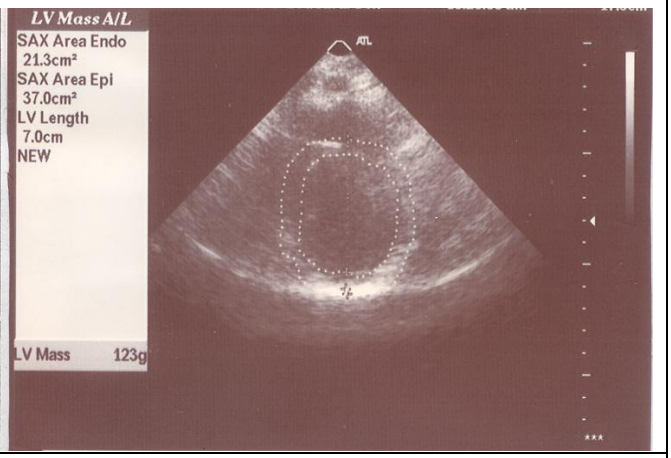
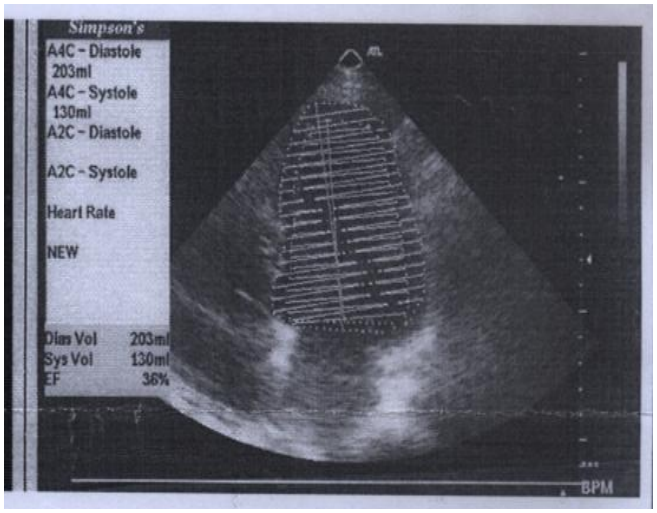
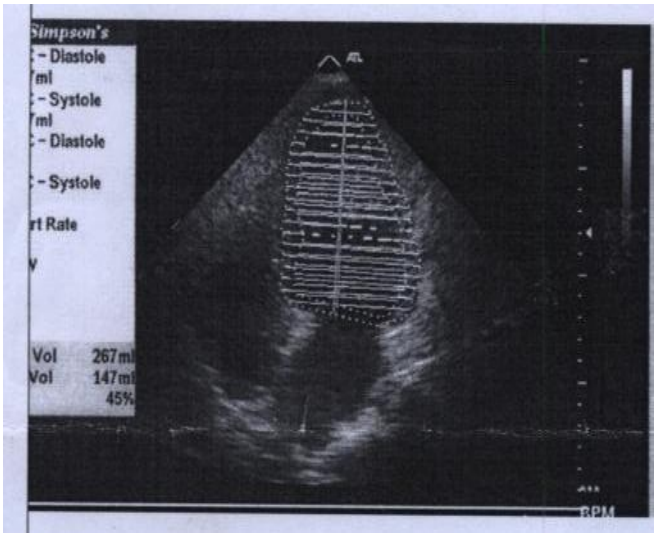
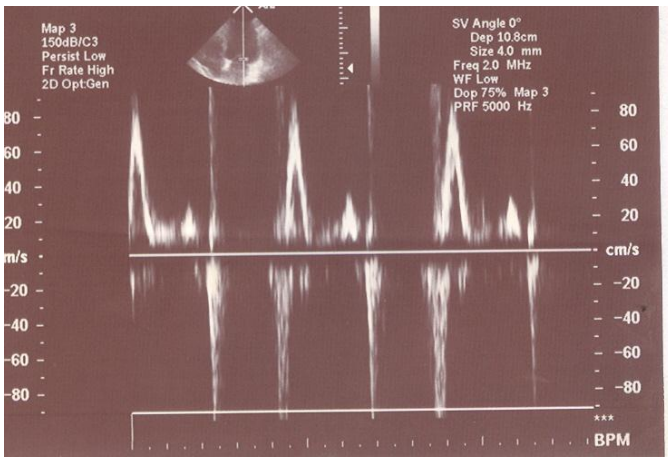
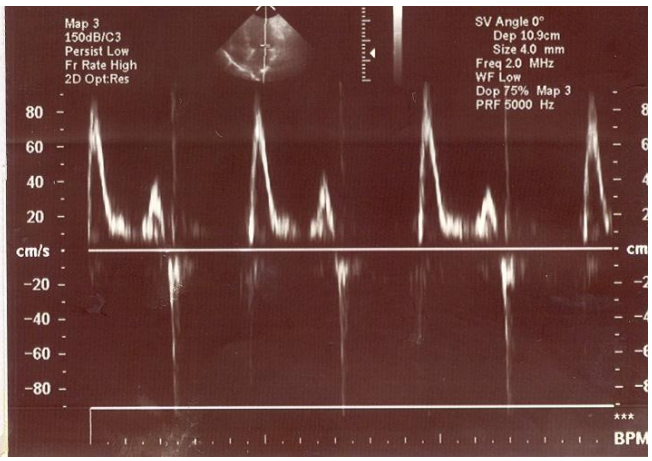
(Case no. 10)Male patient, 62y, smoker presented with acute chest pain

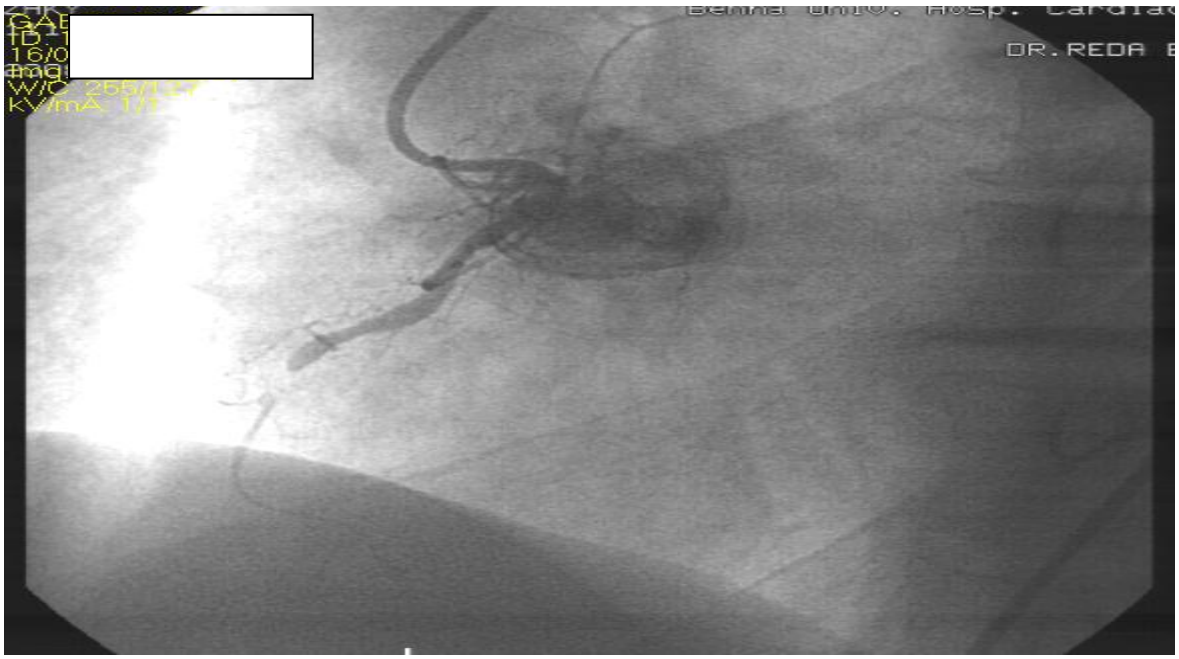
Echo: the 1st assessment shows significantly reduced LVMI with normal ESV, EDV ,impaired systolic function and grade 1 diastolic dysfunction but in the 2nd assessment there was dilated ESV, EDV and reduced EF%, with diastolic dysfunction, with mild MR

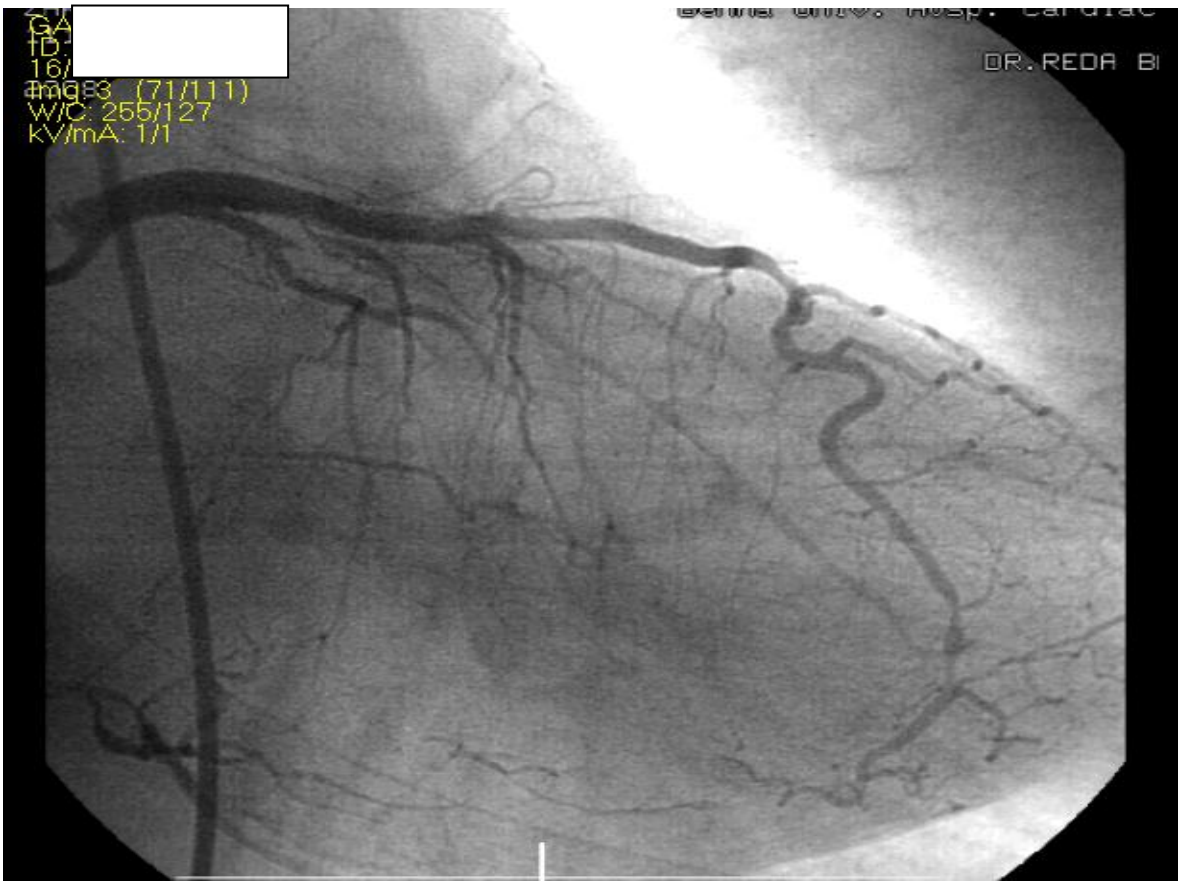
Angio: diffuse diseased LAD with mid segment subtotal occlusion, diffusely diseased LCX and total occlusion of the proximal RCA.

Clinical follow up: HF (NYHA II)

Cases of group B

First assessment	Second assessment
LVMI= 54 gm/m²	LVMI= 48 gm/m²
	
EDV=203 ESV= 130 EF%=36	EDV=267 ESV= 147 EF%=45
	
Diastolic function: grade (3) dysfunctionp	Diastolic function: grade (3) dysfunction
	

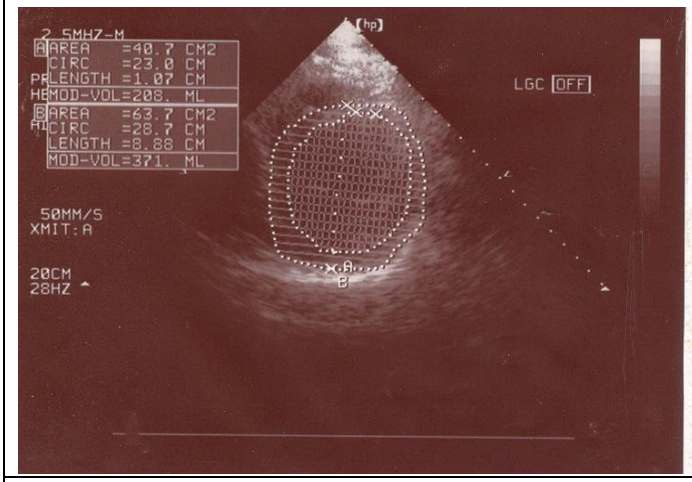
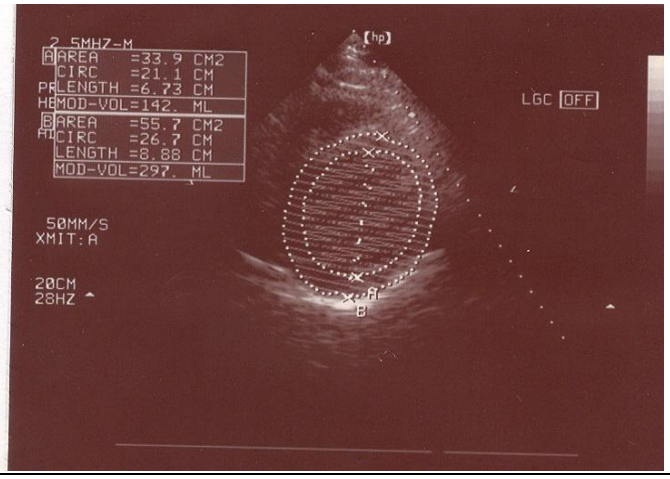
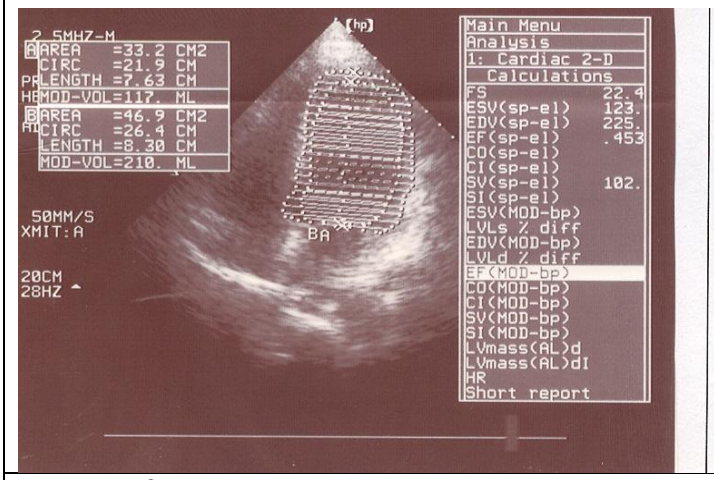
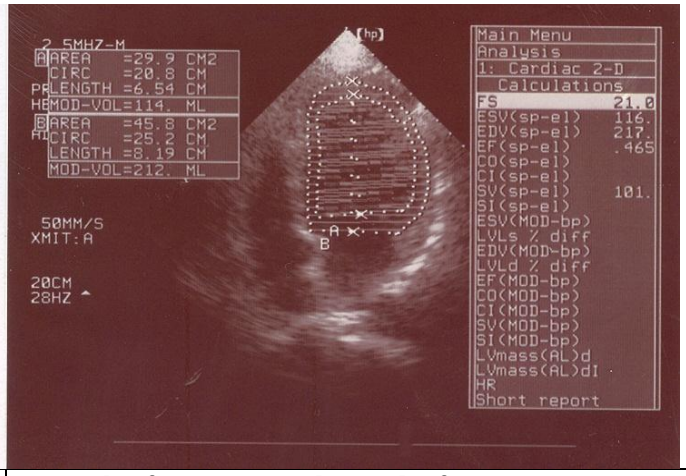


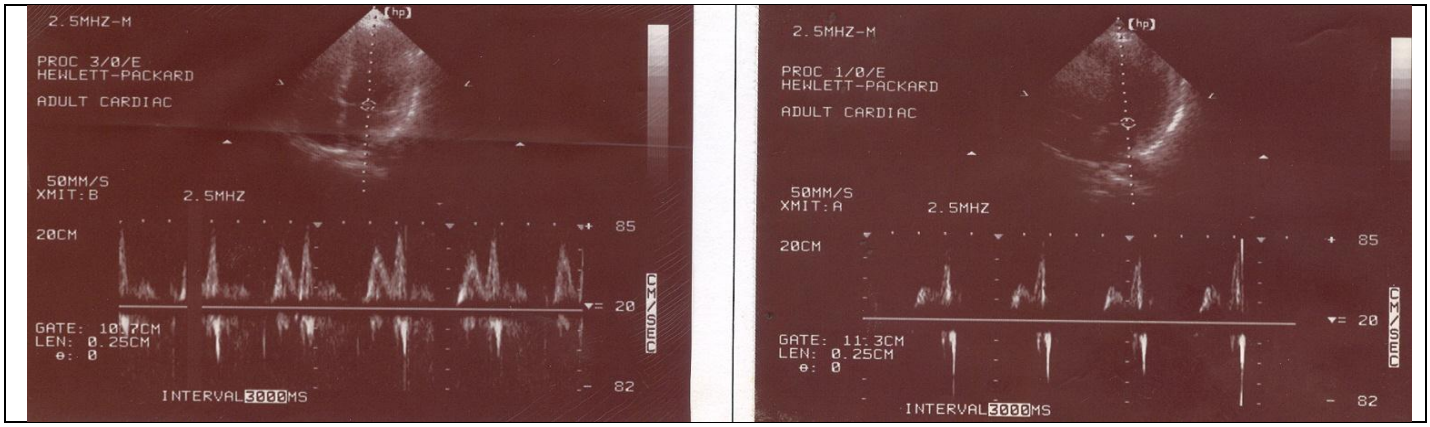


(Case no. 3)Male patient, 55 y, smoker presented with acute chest pain Echo: significantly reduced LVMI and associated dilated LVESV, LVEDV and reduced EF%, with diastolic dysfunction, with mild MR

Angio: subtotal RCA occlusion with antegrade TIMI grade 1 & total LCX occlusion with antegrade TIMI grade 1

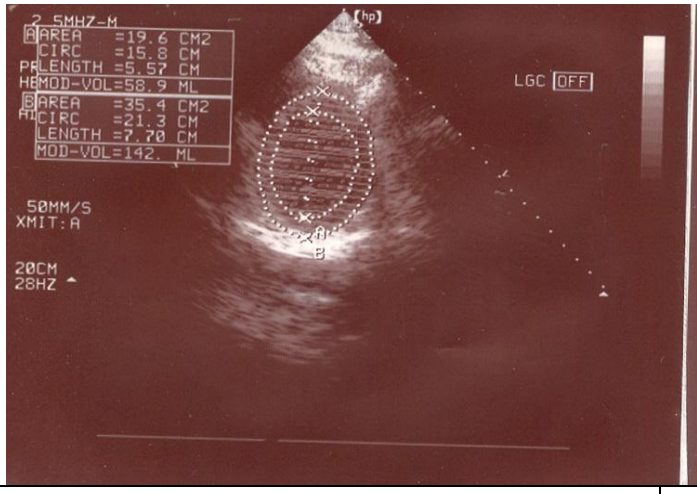
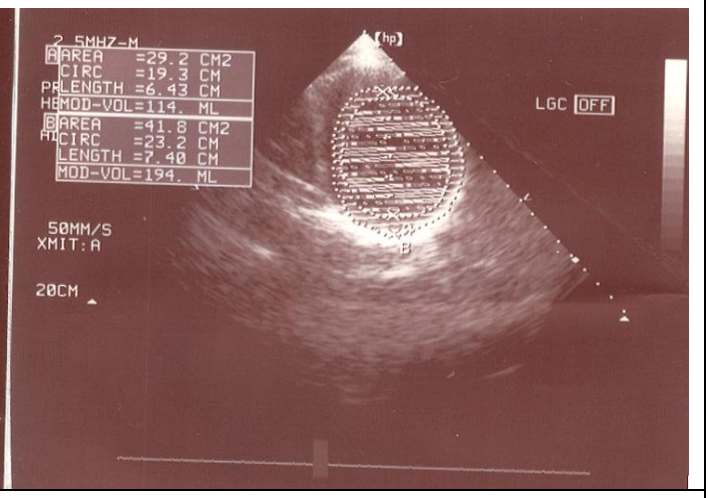
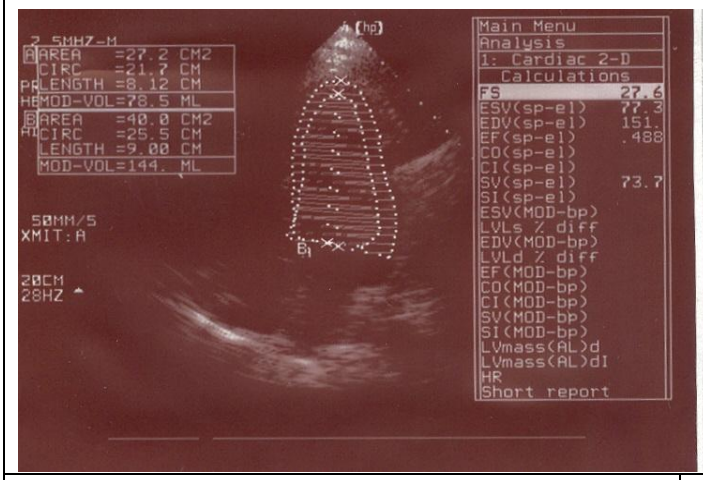
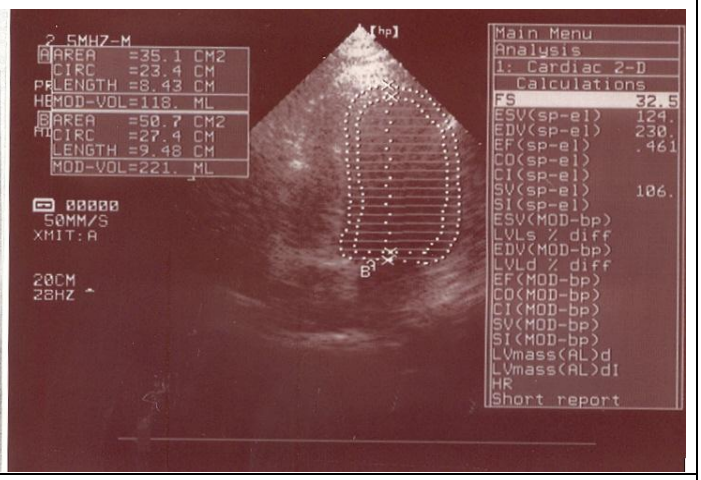
Cases of group B

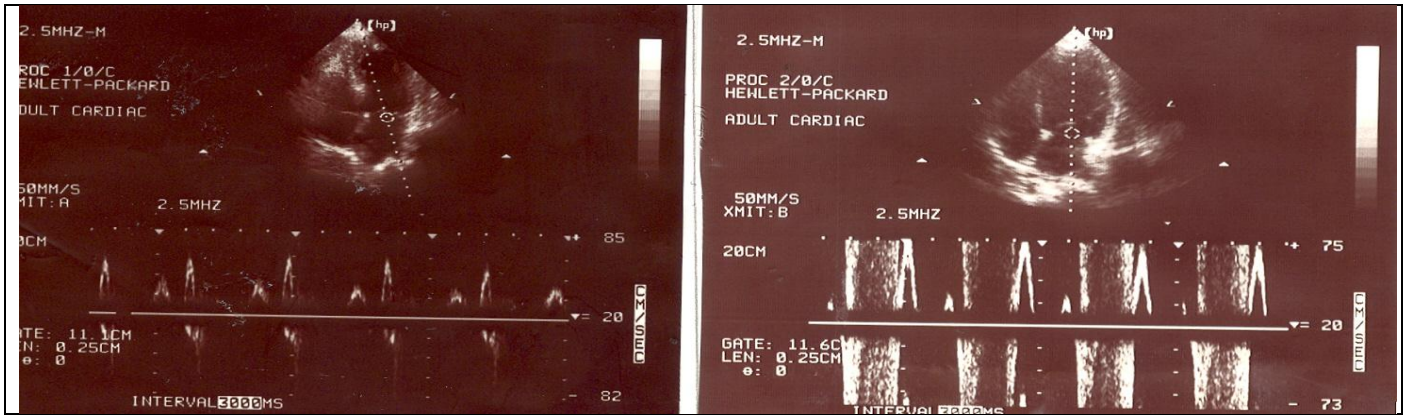
First assessment	Second assessment
LVMI=60 gm/m²	LVMI=55 gm/m²
	
EDV=210 ESV= 117 EF%= 45%	EDV=212 ESV= 114 EF%=46
	
Diastolic function: normal	Diastolic function: grade (1) dysfunction



(case no.4)Male patient, 50 y, smoker presented with acute chest pain
Echo*:* the 1st & 2nd assessment show lower normal LVMI, dilated ESV, EDV with impaired systolic function.
Angio*:* total occlusion of the proximal LAD.

Cases of group B

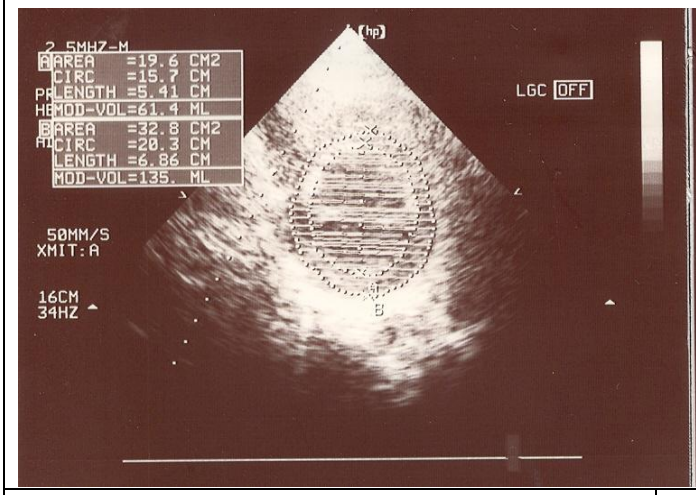
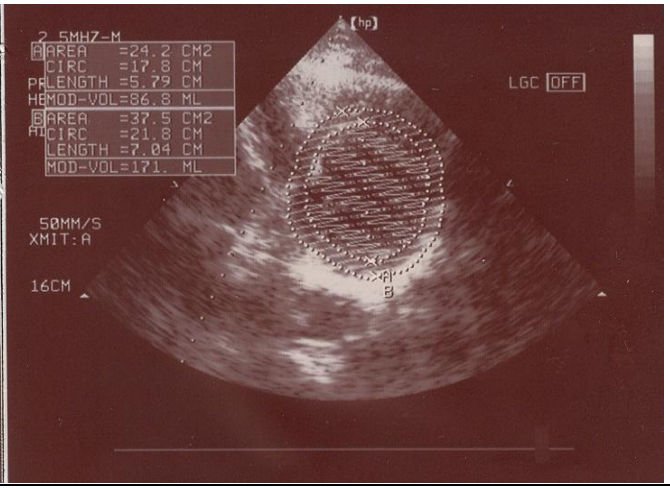
First assessment	Second assessment
LVMI=36 gm/m²	LVMI=45 gm/m²
	
EDV=144 ESV= 78 EF%= 48	EDV= 221 ESV= 118 EF%=46
	
Diastolic function: grade (1)dysfunction	Diastolic function: grade (3)dysfunction

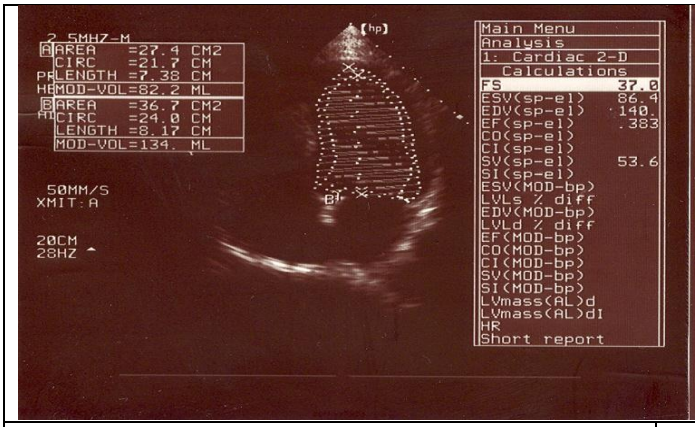


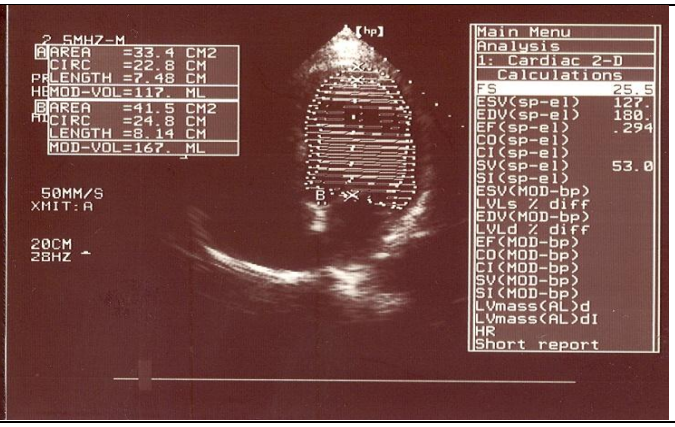
(case no.9) Male patient, 50 y, DM, smoker presented with acute chest pain

***Echo**:* the 1st & 2nd assessment show decreased LVMI, dilated ESV, EDV with impaired systolic function and diastolic function.
***Angio**:* total occlusion in the mid segment of LAD, proximal 80% LCX.

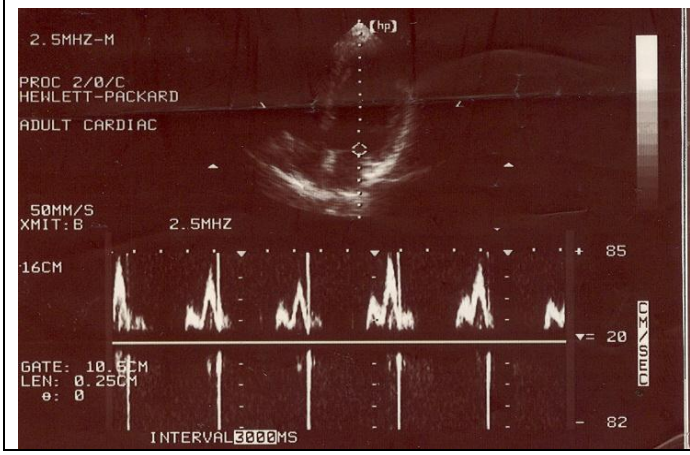
Cases of group B

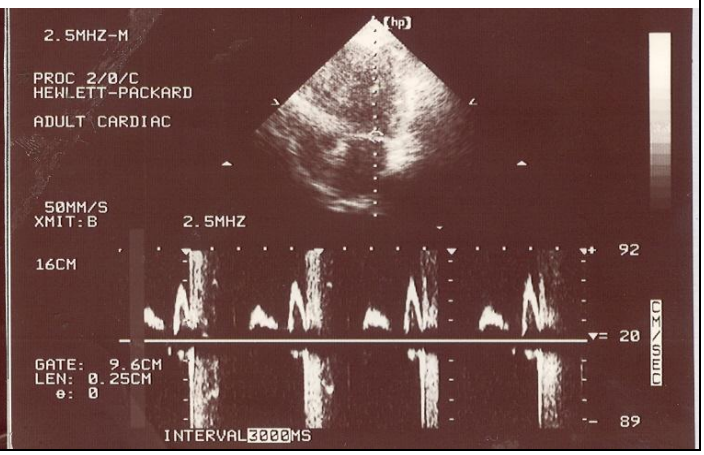
First assessment	Second assessment
LVMI=33 gm/m²	LVMI=37 gm/m²
	
EDV=134 ESV= 82 EF%=38	EDV=167 ESV=117 EF%=29





Diastolic function: grade (1)dysfunction	Diastolic function: grade (1)dysfunction





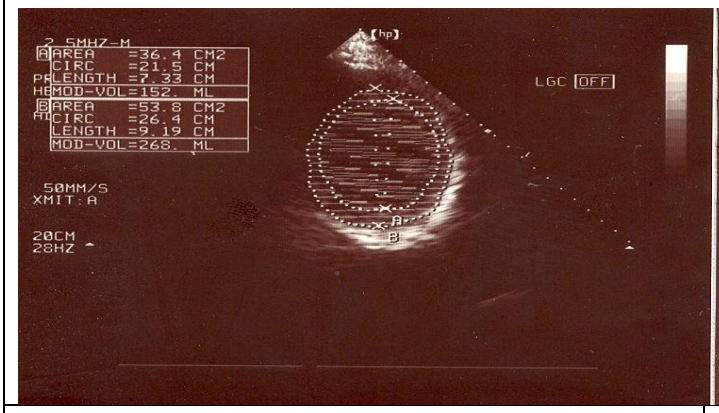
(case no.13)Female patient, 60y, DM,HTN presented with acute chest pain

Echo*:* the 1st & 2nd assessment show decreased LVMI, dilated ESV, EDV with impaired systolic function and diastolic function.

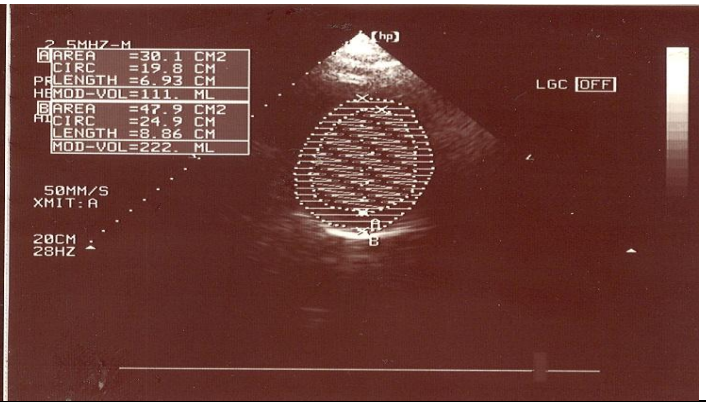
Angio*:* total occlusion in the mid LAD.

Cases of group B

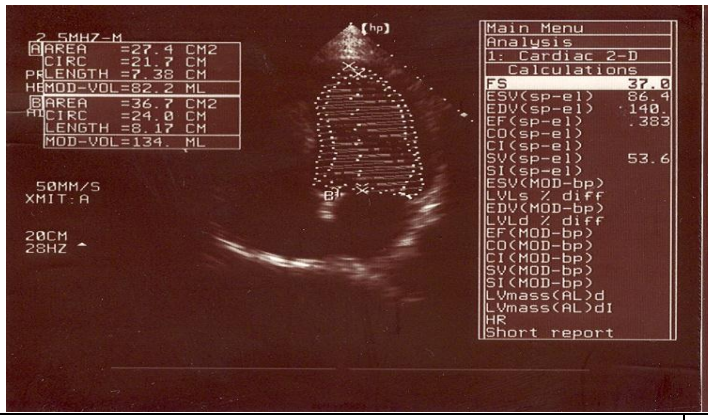
First assessment	Second assessment
LVMI=64 gm/m²	LVMI=55 gm/m²



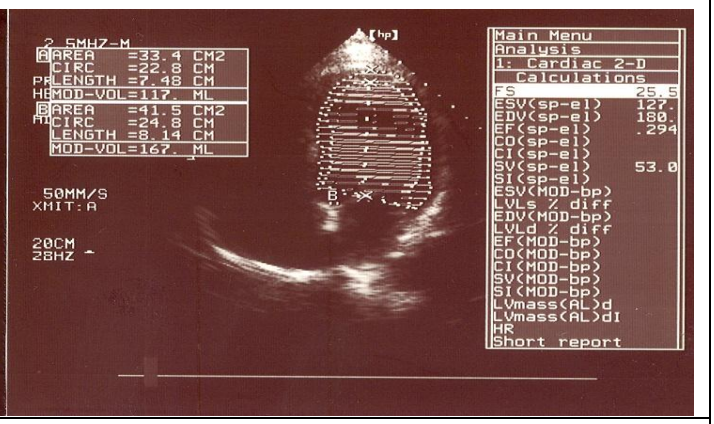
EDV=134
ESV=82 EF%=40



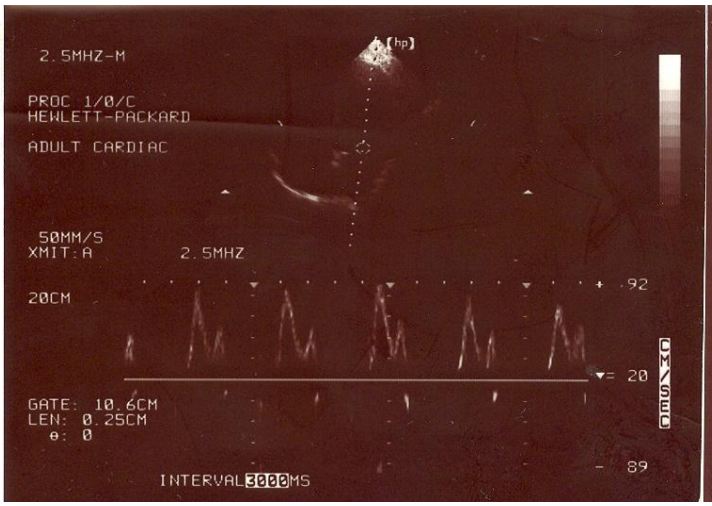
EDV= 167
ESV= 117 EF%=41

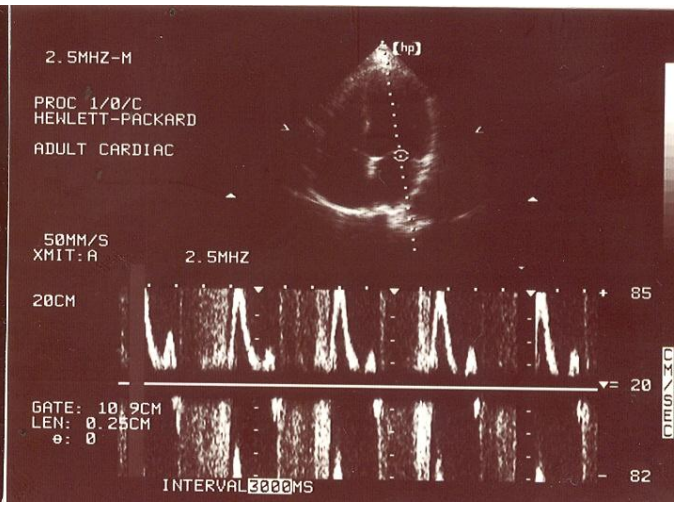


Diastolic function: : grade 3



Diastolic function: grade 3





(Case no. 24)Male patient, 74 y, smoker, DM& HTN presented with acute chest pain Echo: the 1st and 2nd assessment show low LVMI, poor systolic function and diastolic function with mild MR.
Angio: long segment lesion in the proximal LAD about 95%.

RESULTS

The study included 75 patients selected randomly from those who presented to the CCU at Benha University Hospital with acute myocardial infarction during the period from Feb. 2007 to December 2008.

The patients were divided into three groups each included 25 patients:

- *Group (A):* Extensive anterior myocardial infarction
- *Group (B):* Non ST elevation myocardial infarction
- *Group (C):* Inferior myocardial infarction

Analysis of the results included:

- Analysis of the results of each group.
- Comparison between the results of the 3 groups.
- Evaluation of the value of the LVMI when the EF% ≥ 50%.

Analysis of group (A) *Extensive anterior myocardial infarction*:

Table (1A): Age distribution:

	20-30y	31-40y	41-50y	51-60y	>60y
No.	2	3	6	9	5
%	8%	12%	24%	36%	20%

	Age
Mean	52.4
S.D	10.4
Range	28-69

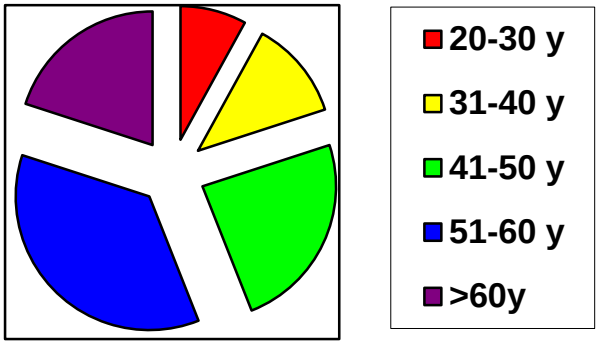


Fig.(1A) Age distribution

Table (2A): Gender distribution:

	Male	Female
No.	22	3
%	88%	12%

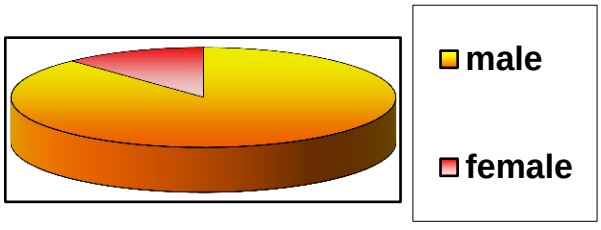


Fig.(2A) gender distribution

Table (3A): Distribution of the study group according to risk factors:

	No.(n=25)	%
Smoking	18	72
Diabetes	5	20
Hypertension	5	20
No risk factor	3	12

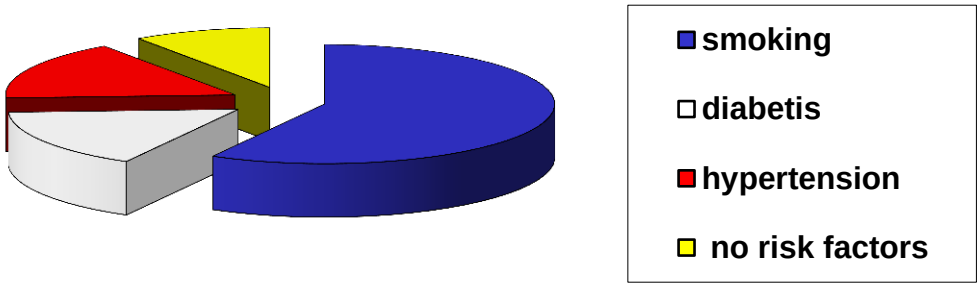
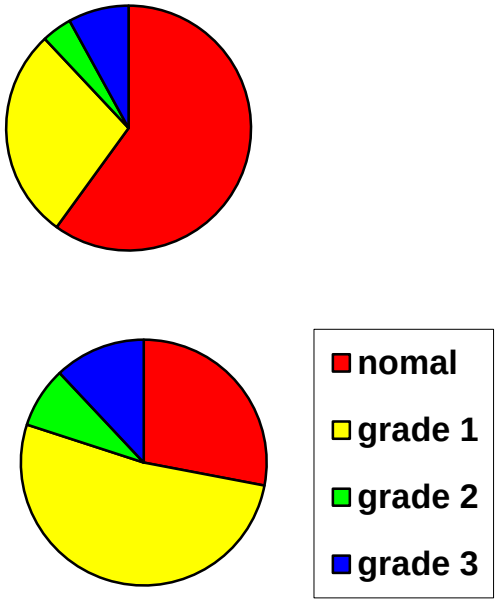


Fig.(3A) Distribution of the study group according to risk factors

Table (4A): Analysis of the diastolic function in the 1st &2nd assessment:

	Normal		Grade 1		Grade 2		Grade 3	
	No.	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**
1st assessment	**15**	**60%**	**7**	**28%**	**1**	**4%**	**2**	**8%**
2nd assessment	**7**	**28%**	**13**	**52%**	**2**	**8%**	**3**	**12%**



Fig(4A): Analysis of the diastolic function in the 1st &2nd assessment

Table (5A) Analysis of the systolic function in the 1st &2nd assessment:

	Normal		**Impaired**		**poor**	
	No.	***%***	***No.***	***%***	***No.***	***%***
1st assessment	10	40%	7	28%	8	32%
2nd assessment	7	28%	9	36%	9	36%

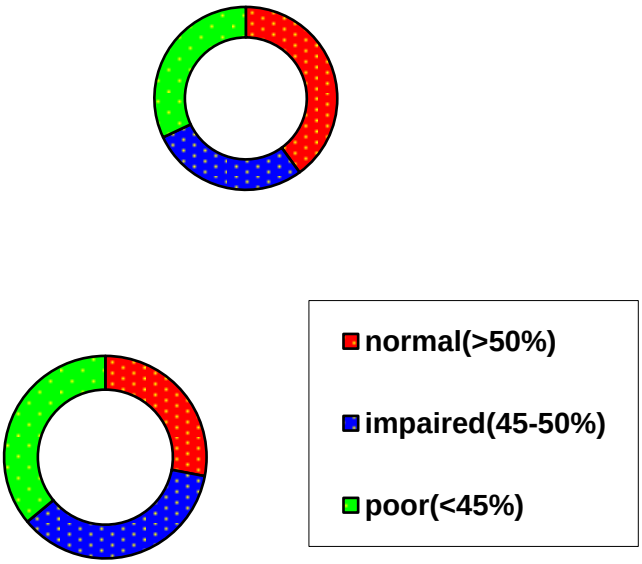


Fig.(5A): Analysis of the systolic function in the 1st &2nd assessment

Table (6A): Mean of the EF%, EDV, ESV in the 1st &2nd assessment:

Mean EF%		Mean EDV		Mean ESV	
1st	***2nd***	***1st***	***2nd***	***1st***	***2nd***
47%	42%	149	180	82	110

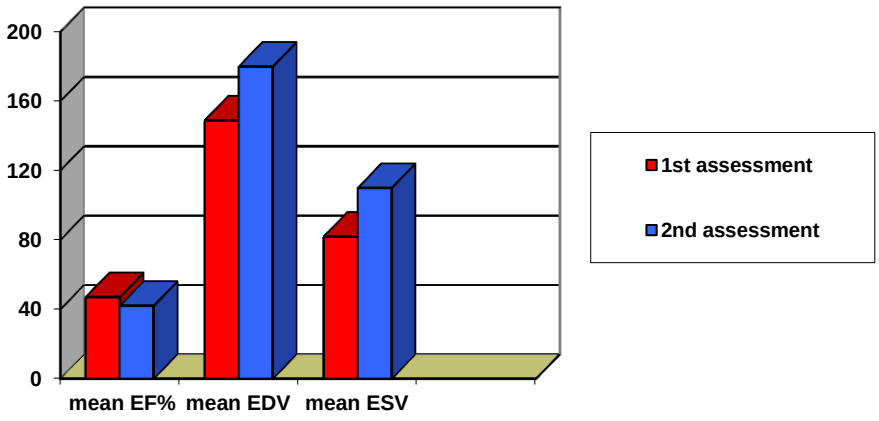


Fig.(6A):Mean of the EF%, EDV, ESV in the 1st &2nd assessment

Table (7A): Mean of the mass in the 1st &2nd reading:

	1st LVM	2nd LVM
Mean	43.9	43.01
S.D	8.2	9.9
Range	30-59	24-58

Mean of the LVMI in the 1st assessment was 43.9gm/m² (range 30-59) and was 43 gm/m² (range 24-58) in the 2nd assessment with mass loss 2.02%

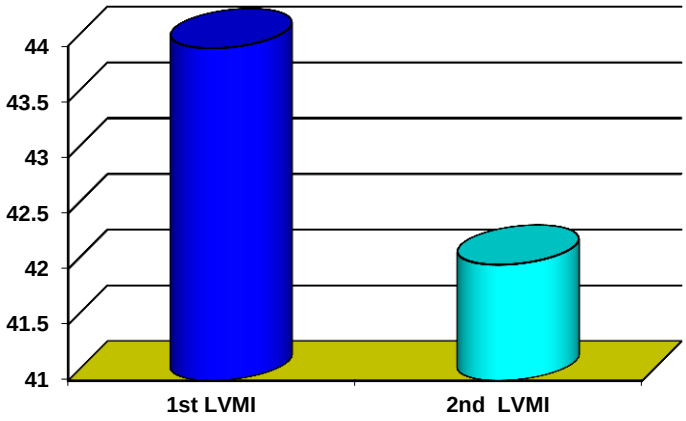


Fig. (7A): Mean of the mass in the 1st &2nd reading

Table (8A): Assessment of MR in the 1st &2nd assessment:

	Incidence in 1st assessment		Incidence in 2nd assessment		Mean of LVMI		EF%	
	No.(25)	%	No.(25)	%	1st ass.	2nd ass.	1st ass.	2nd ass.
With MR	**5**	**20%**	**8**	**32%**	**44gm/m²**	**35 gm/m²**	**36%**	**35%**
without MR	**20**	**80%**	**17**	**68%**	**47 gm/m²**	**40 gm/m²**	**40%**	**38%**

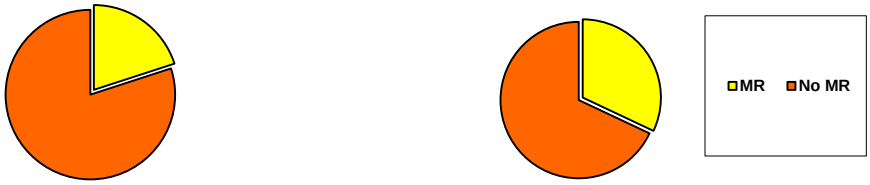


Fig. (8A): Incidence of MR during the 1st & 2nd

During MR (mild in 12% and moderate in 8%) and in the 2nd assessment the incidence

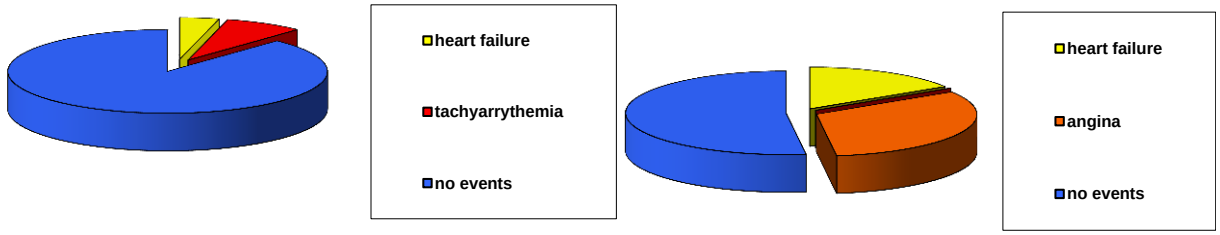
of MR increased to 32% (mild in 20% , moderate in 8% and sever in 4%).

Mean of the LVMI in patients with MR during the 1st assessment was 44 gm/m² and in the 2nd was 35 gm/m² but was 47 and 40 during the 1st and 2nd assessment respectively in patients without MR of MR).

Mean of the EF% in patients with MR in the 1st assessment was 36% and in the 2nd was 35% but was 40% and 38% during the 1st and 2nd assessment respectively in patients without MR.

Table (9A): Clinical events in the study group:

	Heart failure		**Angina**		**Tachyarrhythmia**		**No events**	
	No.	*%*	*No.*	*%*	*No.*	*%*	*No.*	*%*
Hospital ad.	**1**	**4%**	**0**	**0%**	**2**	**8%**	**22**	**88%**
Follow up	**4**	**16%**	**8**	**32%**	**0**	**0%**	**13**	52%



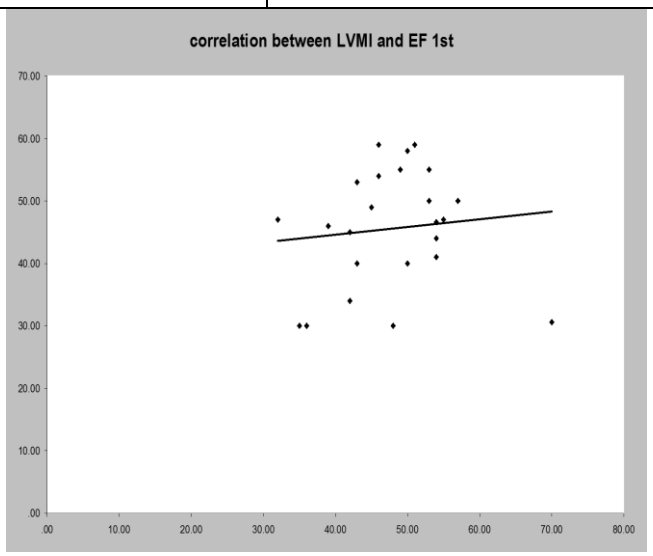
Fig(9A)**:** Clinical events during hospital admission and in the follow

In this group the incidence of clinical events during hospital admission was 12% (4% had HF and 8% had tacyarrythemias)

The clinical follow up after 6 months of discharge; the incidence of clinical events was 48% (16% had HF and 32% had recurrent angina that needed rehospitalization)

Table (10A): **<u>Correlation between 1st measured LVMI & EF% and diastolic function:</u>**

Correlation between 1st LVMI and EF % & diastolic function		
	r	**P**
EF%	0.41	<0.05
Diastolic function	-0.43	<0.05



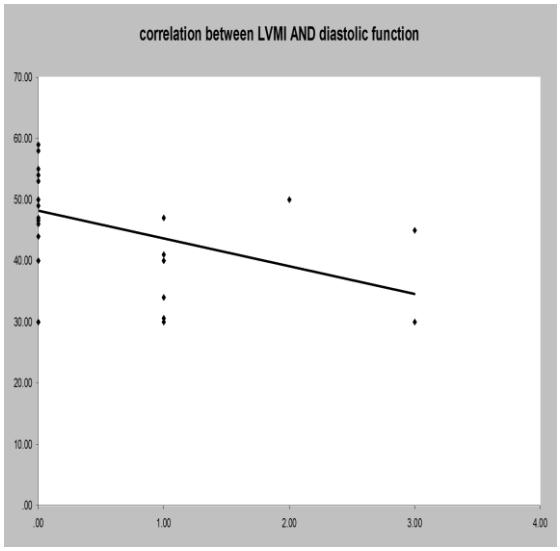


Fig.(10A): Correlation between 1st measured LVMI & EF% and diastolic function

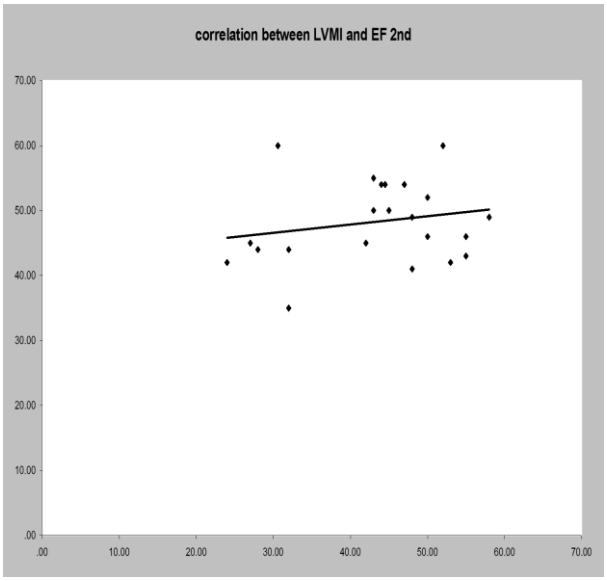
Table and figure 10A show the relation between the LVMI and EF% measured 1week after admission, and it was found that there is positive correlation between them and the result is

statistically significant ($p < 0.05$) *(indicting that the lower the LVMI the lower systolic function).*

Also table and figure 10A show the relation between the LVMI and diastolic function measured1week after admission, and it was found that there was negative correlation between them and the result is statistically significant ($p < 0.05$) *(indicting that when the mass is lost there is poor diastolic function).*

Table (11A): **Correlation between 2nd measured LVMI & EF% and diastolic function:**

Correlation between 2nd LVMI and EF and diastolic function		
	r	**P**
EF	0.40	<0.05
Diastolic function	-0.41	<0.05



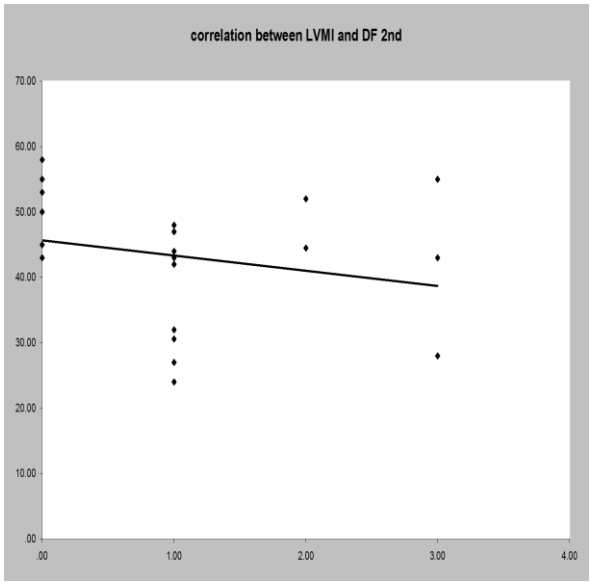


Fig.(11A):Correlation between 2nd measured LVMI & EF% and diastolic function:

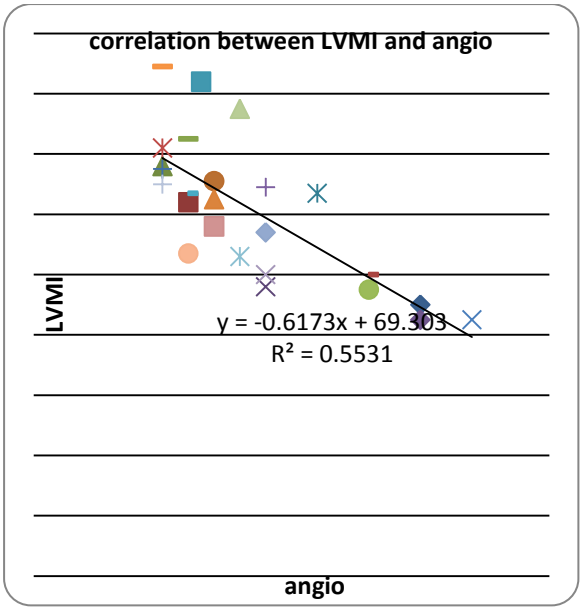
Table and figure (11A) show the relation between the left ventricular mass index and EF% measured after one month of admission, and it was found that there is positive correlation between them and the result is statistically significant ($p < 0.05$).

Table and figure (11A) also show the relation between the left ventricular mass index and diastolic function measured after one month of admission, and it was found that there is negative

correlation between them and the result is statistically significant ($p < 0.05$).

Table (12A): **Correlation between LVMI and CPK and angiographic score:**

Correlation between mean LVMI & CPK and angiographic score		
	r	**p**
CPK	-0.29	> 0.05
Angio	- 0.30	<0.05



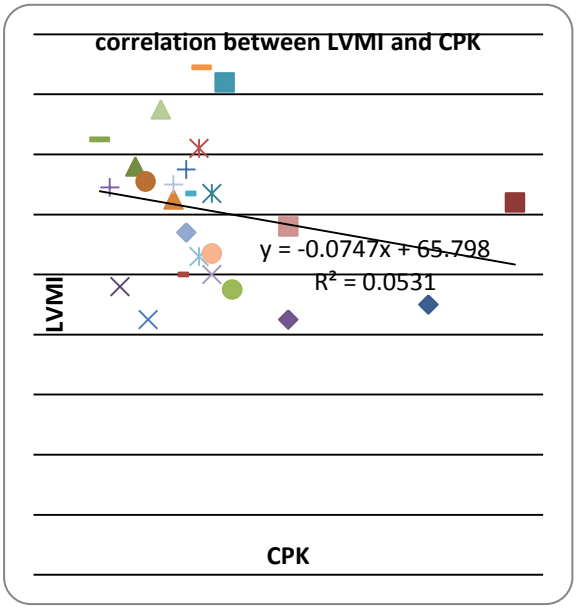


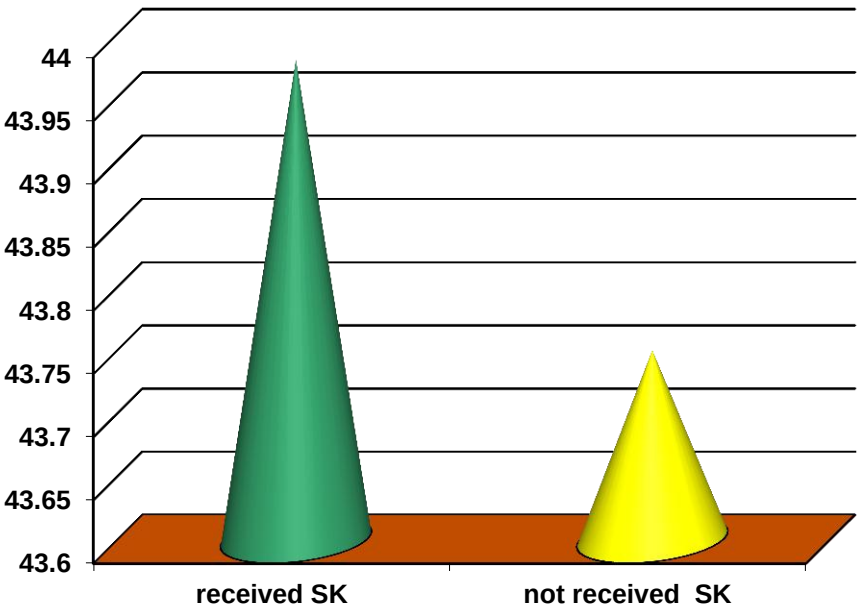
fig (12A): Correlation between LVMI and CPK and angiographic score

Table and figure (12A) show that there is negative correlation between mean of the LVMI of the two measures and the score of the coronary artery lesion (with increased score, there is decline of the mass) and it was statistically significant ($P<0.05$).

Also there is negative correlation between 1st measured LVMI and CPK-MB but it was statistically insignificant (P>0.05).

Table (13A): **difference between LVMI in patients who administrated thrombolytic therapy and who didn't receive thrombolytic therapy:**

	Received SK (20)	**didn't receive (4)**	**t**	**p**
Mean	43.98	43.75	0.051	> 0.05
S.D	8.4	7.9		
Range	30-59	32-49		



There was no statistical difference in the 1st LVMI between the group who received SK and those who didn't received SK (P>0.05).

Comparison between the 3 groups

Table (1D): Echocardiographic and Angiographic analysis:

	Group (A)	Group (B)	Group (C)	f	p
% mass loss	0.5±26.6	3.9+10.9	0.02±10.9	0.3	>0.05
% of EF loss	-7.2±23.7	-9.04±11.5	-3.6±7.2	0.8	>0.05
Angiographic score	40.8±19.2	31.7±25.4	14±14.2	11.4	<0.05
% of increased EDV	29.3±45.2	37.02±48.4	11.1±43.6	0.5	>0.05
% of increased ESV	41.7±45.8	58.9±66.1	16.9±43.9	1.1	>0.05

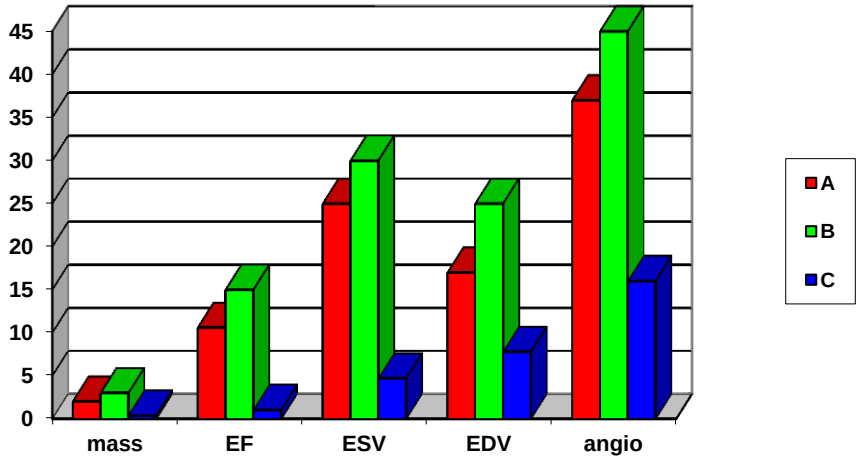


Fig. (1D): Echocardiographic and Angiographic analysis

Table and fig. (1D) show the difference in between the 3 groups as regard to % of mass loss (from the 1st assessment to the 2nd), % of decrease of EF%, % of increase in the EDV& ESV. It was found that group (B) is the most affected followed by group (A) then group (C) but the difference is statistically insignificant (p>0.05).

Angiographic score is highest in group (B) followed by group (A) then group (C) and the difference is statistically significant (p<0.05).

Table (2D): Clinical events in the 3 groups:

	Group (A)		Group (B)		Group (C)	
	No.	%	No.	%	No.	%
Heart failure	5	20%	8	32%	1	4%
Readmission with angina	8	32%	10	40%	2	8%
Tachyarrhythmia	2	8%	3	12%	0	0
Death	0	0	1	4%	0	0
Heart block	0	0	0	0	2	8%
No events	10	40%	3	12%	20	80%

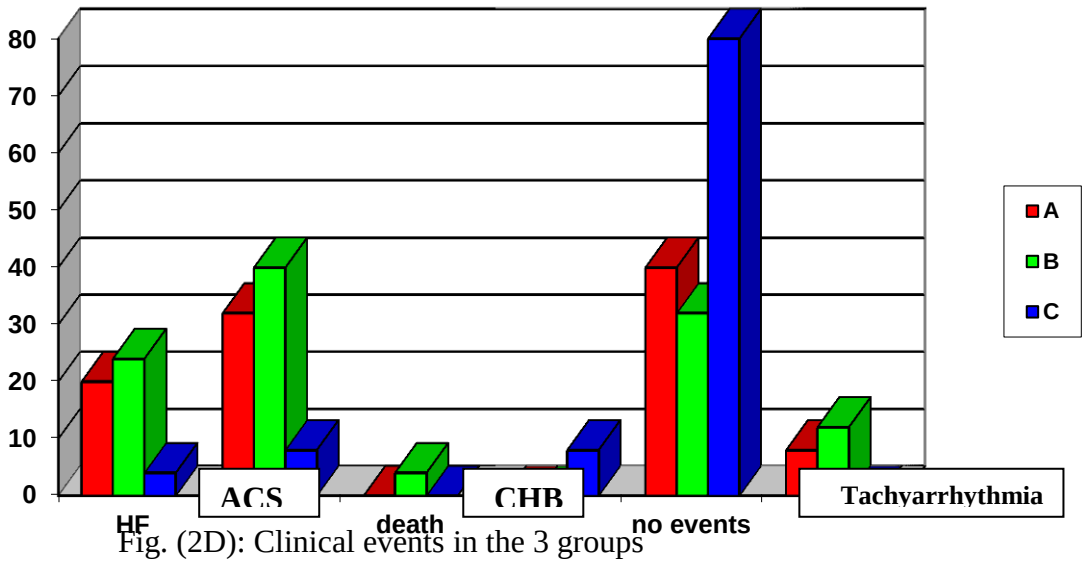


Fig. (2D): Clinical events in the 3 groups

table and fig.(2D)show the difference in the incidence of clinical events during the hospital admission and 6months follow up in between the 3groups: it was found that the incidence of HF, recurrent angina and death is higher in group (B) and it is statically significant ($p<0.05$).

Also it was found that only 8% of cases of group (C) developed complete heart block it is statically significant ($p<0.05$).

Table (1E):The prognostic value of LVMI when EF% ≥50%:

		Group (A)	*Group (B)*	*Group (C)*
1st assessment	*Mean of LVMI*	**47gm /m²**	**54 gm /m²**	**65 gm /m²**
	% of EF≥ 50%	**36%**	**44%**	**72%**
2nd assessment	*Mean of LVMI*	**39 gm /m²**	**48 gm /m²**	**64.2 gm /m²**
	% of EF ≥50%	**28%**	**20%**	**68%**
p		**<0.05**	**<0.05**	**>0.05**

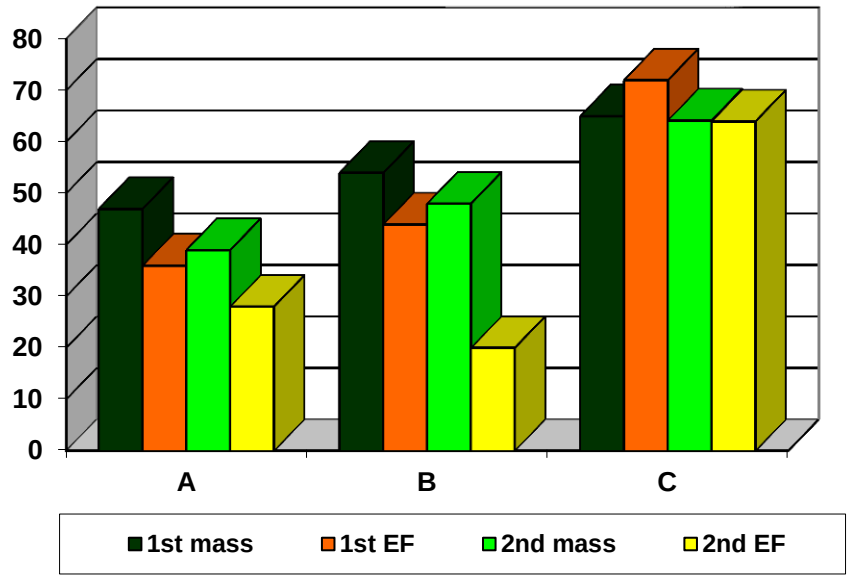


Fig. (1E): The prognostic value of LVMI when EF% ≥50%

Table and fig. (1E) it is clear that low LVMI than the normal value in patients with EF ≥ 50 % in both group A & B during the 1st assessment is of prognostic value for further drop of the LVMI and EF% in the follow up assessment and it was statistically significant (p<0.05).

In group C the mean of the mass index is within normal in both 1st and 2nd assessment and the difference is statistically insignificant ($p>0.05$).

Analysis of group (C): *inferior myocardial infarction*

Table (1C):*Age distribution:*

	20-30y	31-40y	41-50y	51-60y	>60y
No.	0	4	10	5	6
%	0%	16%	40%	20%	24%

	Age
Mean	51.5
S.D	10.9
Range	35-77

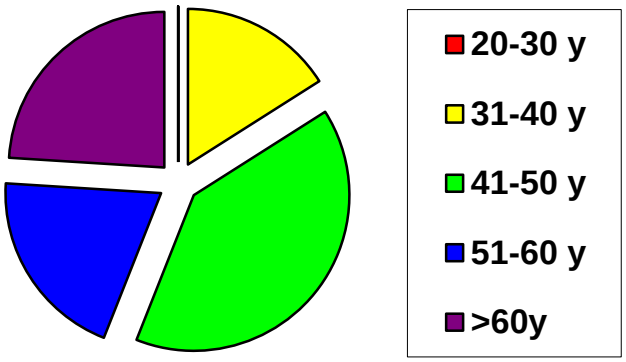


Fig.(1C) Age distribution

Gender distribution:

	Male	Female
No.	16	9
%	64%	36%

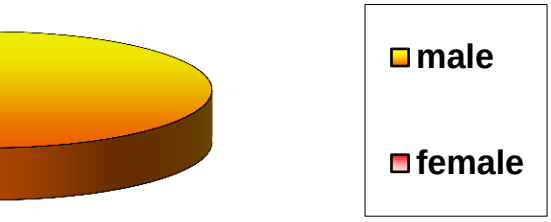


Fig.(2C): gender distribution

Table (3C) Distribution of the study group according to risk factors:

	NO.	%
Smoking	11	44%
Diabetes	14	64%
Hypertension	7	28%
No risk factor	2	8%

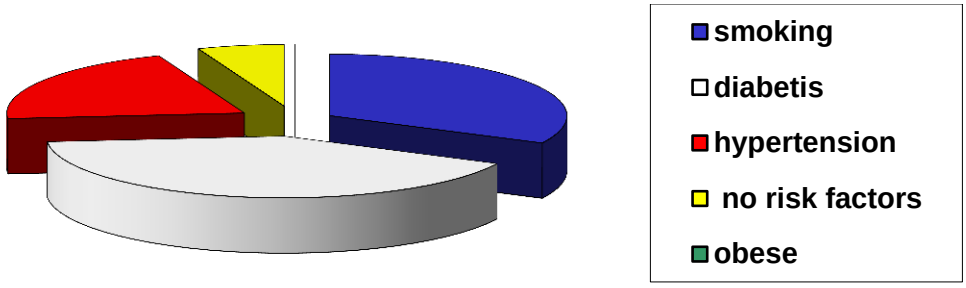


Fig.(3C): Distribution of the study group according to risk factors

Table (4C): Analysis of the diastolic function in the 1st &2nd assessment:

	Normal		Grade 1		Grade 2		Grade 3	
	No.	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**
1st assessment	**10**	**40%**	**11**	**44%**	**2**	**8%**	**2**	**8%**
2nd assessment	**6**	**24%**	**12**	**48%**	**4**	**16%**	**3**	**12%**

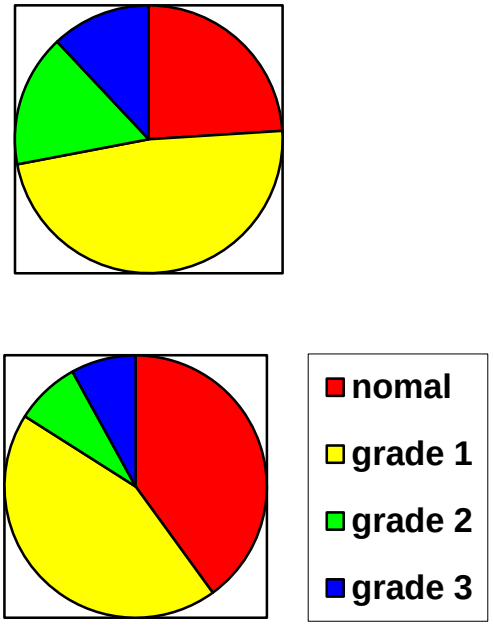


Fig.(4C): Analysis of the diastolic function in the 1st &2nd assessment

Table (5C): Analysis of the systolic function in the 1st &2nd assessment:

	Normal		Impaired		poor	
	No.	**%**	**No.**	**%**	**No.**	**%**
1st assessment	16	64%	7	28%	2	8%
2nd assessment	15	60%	6	24%	4	16%

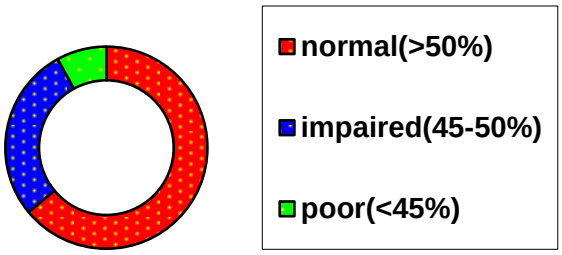


Fig.(5C): Analysis of the systolic function in the 1st &2nd assessment

Table (6C):Mean of the EF%, EDV, ESV in the 1st &2nd assessment:

Mean EF%		Mean EDV		Mean ESV	
1st	**2nd**	**1st**	**2nd**	**1st**	**2nd**
57.5%	**56.9%**	**140**	**152**	**60**	**63**

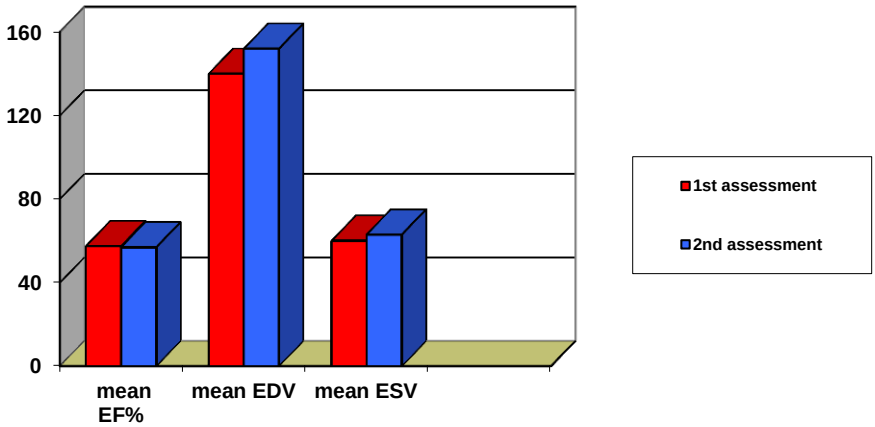


Fig. (6C): Mean of the EF%, EDV, ESV in the 1st &2nd assessment

Table (7C): Mean of the mass in the 1st &2nd reading:

	1st LVMI	2nd LVMI
Mean	60.89	60.6
S.D	11.6	12.7
Range	40-80	40-89

Mean of the LVMI in the 1st assessment was 60.89 gm/m² (range 40-80) and was 60.6 gm/m² (range 40-89) in the 2nd assessment with mass loss 0.4%.

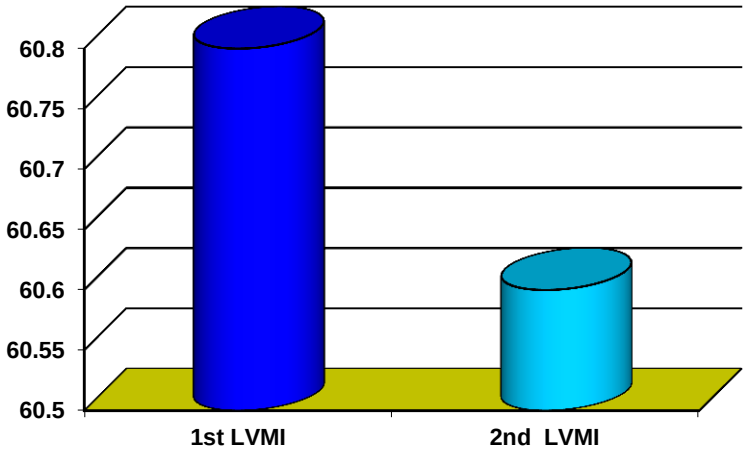
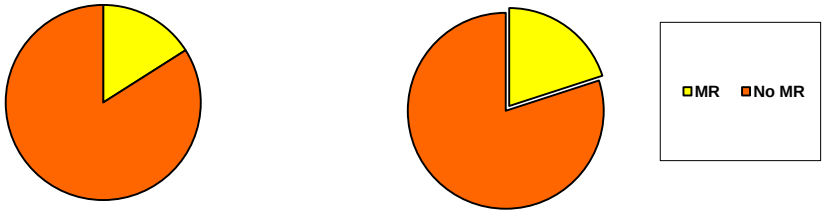


Fig. (7C): Mean of the mass in the 1st &2nd reading

Table (8C): Assessment of MR in the 1st &2nd assessment:

	Incidence in 1st assessment		Incidence in 2nd assessment		Mean of LVMI		EF%	
	No.(25)	%	No.(25)	%	1st ass.	2nd ass.	1st ass.	2nd ass.
With MR	**4**	**16%**	**5**	**20%**	**60gm/m²**	**55 gm/m²**	**59%**	**50%**
without MR	**21**	**84%**	**20**	**80%**	**64 gm/m²**	**52 gm/m²**	**60%**	**51%**



During [illegible] (mild in 8% and moderate in 8%) and in the 2nd assessment the incidences of MR increased to 20 %(mild in 12% and moderate in 8%).

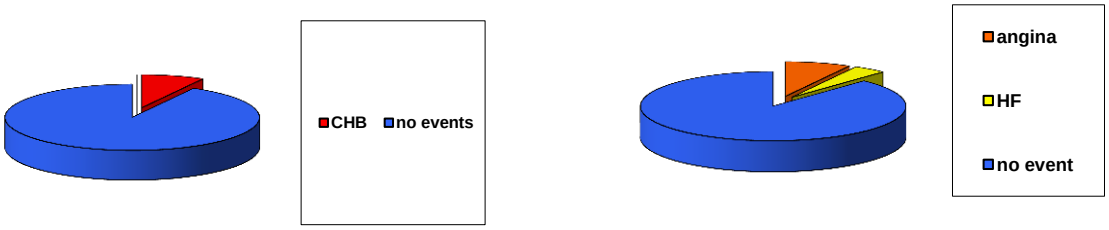
Fig. (8C): Incidence of MR during the 1st & 2nd [illegible]

Mean of the LVMI in patients with MR during the 1st assessment was 60 gm/m² and in the 2nd was 55 gm/m².

Mean of the EF% in patients with MR in the 1st assessment was 59% and in the 2nd was 50%

Table (9C): <u>Clinical events in the study group:</u>

	Heart failur		**Angina**		**CHB**		**No events**	
	No.	*%*	*No.*	*%*	*No.*	*%*	*No.*	*%*
Hospital ad.	**0**	**0%**	**0**	**0%**	**2**	**8%**	**23**	**92%**
Follow up	**1**	**4%**	**2**	**8%**	**0**	**0%**	**22**	88%



Fig(9C)**:** Clinical events during hospital admission and in the follow

In this group the incidence of clinical events during hospital admission was 8% in the form of complete heart block

The clinical follow up after 6 months of discharge; clinical events was 12% (4% had HF, 8% had recurrent angina that needed rehospitalization).

Table (10C): **Correlation between 1st measured LVMI & EF% and diastolic function:**

Correlation between 1st LVMI and EF & diastolic function		
	r	**p**
EF	0.49	< 0.05
Diastolic function	- 0.54	< 0.05

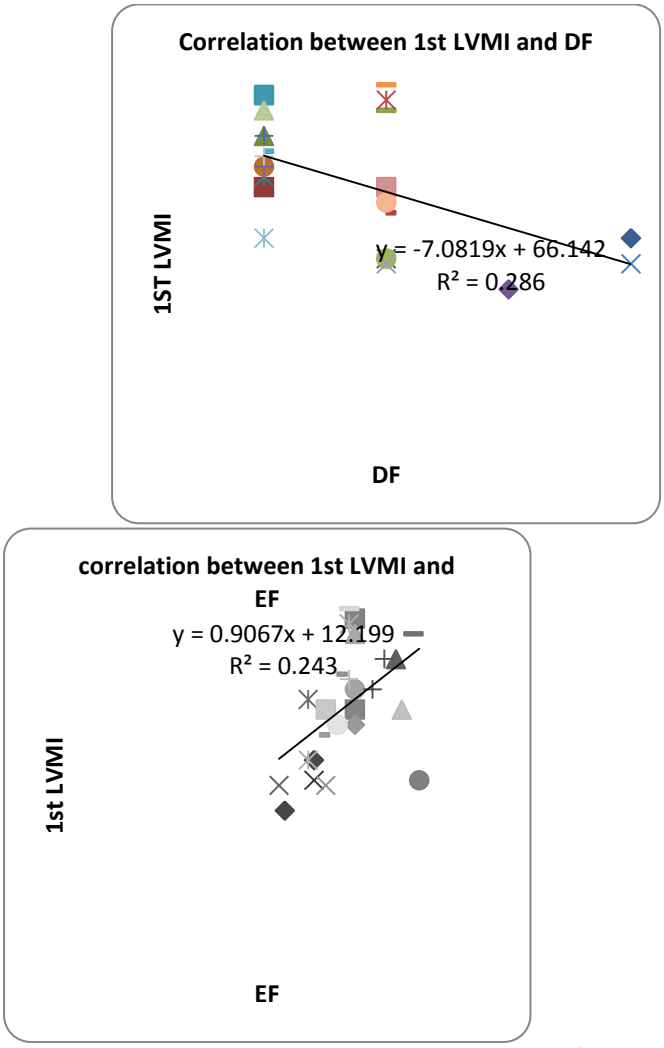


Fig.(10C): Correlation between 1st measured LVMI & EF% and diastolic function

Table and figure 10C show the relation between the left ventricular mass index, EF% measured 1 week after admission, and

it was found that there is positive correlation between them but the result is statistically significant (P<0.05)

Also table and figure 10C the relation between the left ventricular mass index, and diastolic function measured1 week after admission, and it was found that there is negative correlation between them and the result is statistically significant(P<0.05).

Table (11C): **Correlation between 2nd measured LVMI & EF% and diastolic function:**

Correlation between 2nd LVMI and EF & diastolic function		
	r	**p**
EF	0.56	< 0.05
Diastolic function	- 0.63	< 0.05

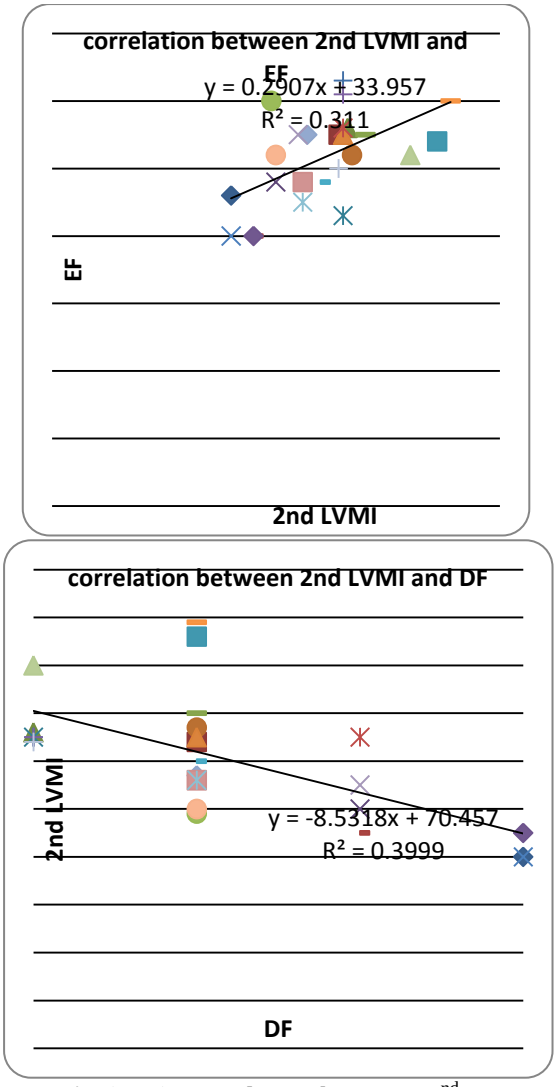


Fig.(11C):Correlation between 2nd measured LVMI & EF% and diastolic function

Table and figure (11C) show the relation between the left ventricular mass index, EF% measured after one month of admission, and it was found that there is positive correlation between them but the result is statistically significant

Also table and figure (11C) show the relation between the left ventricular mass index, and diastolic function measured after one month of admission, and it was found that there is negative correlation between them and the result is statistically significant.

Table (12C): **Correlation between LVMI & CPK and angiographic score:**

Correlation between LVMI and CPK MB & angiographic score		
	r	**p**
CPK	- 0.23	> 0.05
Angio	- 0.74	< 0.05

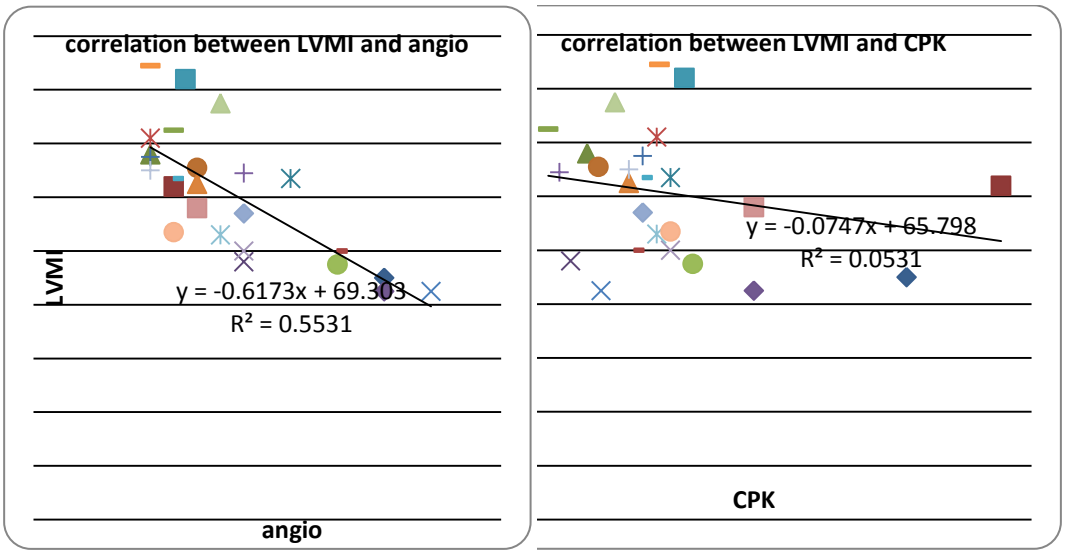


fig (12C): Correlation between LVMI and CPK and angiographic score

Table and figure (12C) show that there was negative correlation between mean of the left ventricular mass of the two reading and the score of the coronary artery lesion and it was statistically significant (P<0.05).

Also there was negative correlation between 1st measured left ventricular mass and CPK-MB but it was statistically insignificant (P>0.05).

Table (13 C): **difference between LVMI in patients who administrated thrombolytic therapy and who didn't receive it:**

	Received SK (20)	**didn't receive (4)**	**t**	**p**
Mean	70	68	0.051	> 0.05
S.D	8.4	7.9		
Range	60-78	50-75		

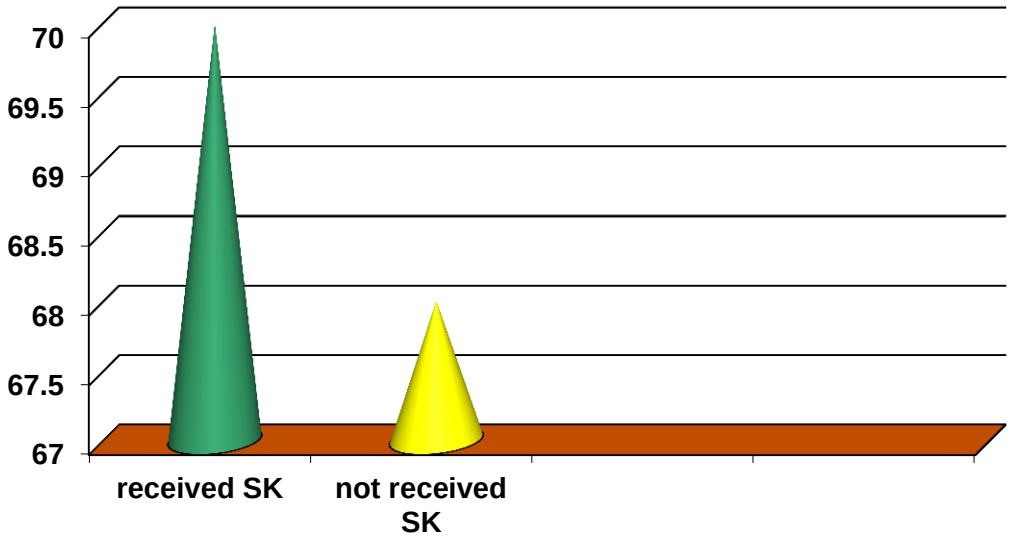


fig (13C): Correlation between LVMI and CPK and angiographic score

Mean of the LVMI within the normal range in patients who received and those who didn't receive thrombolytic therapy and the difference was statistically insignificant (P>0.05).

Analysis of group (B) *Non ST elevation myocardial infarction*

*Table (1B)**:Age distribution**:*

	20-30y	31-40y	41-50y	51-60y	>60y
No.	0	2	2	11	10
%	0%	8%	8%	44%	40%

	Age
Mean	67.96
S.D	8.53
Range	40-74

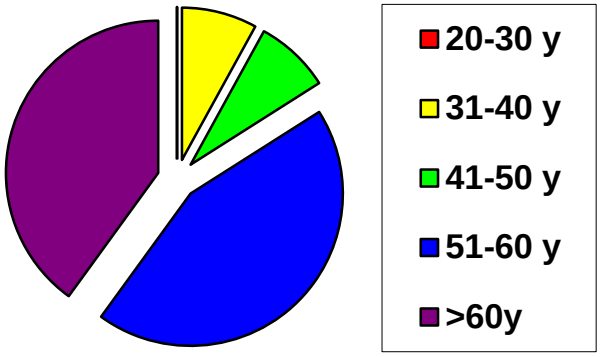


Fig.(1B) Age distribution

Table (2B): Gender distribution:

	Male	Female
No.	18	7
%	72%	28%

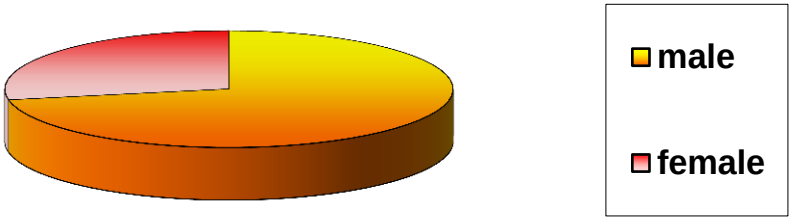


Fig.(2B): gender distribution

Table (3B): Distribution of the study group according to risk factors:

	NO.(no=25)	%
Smoking	13	52
Diabetes	7	28
Hypertension	7	28
Obesity	3	12
No risk factor	3	12

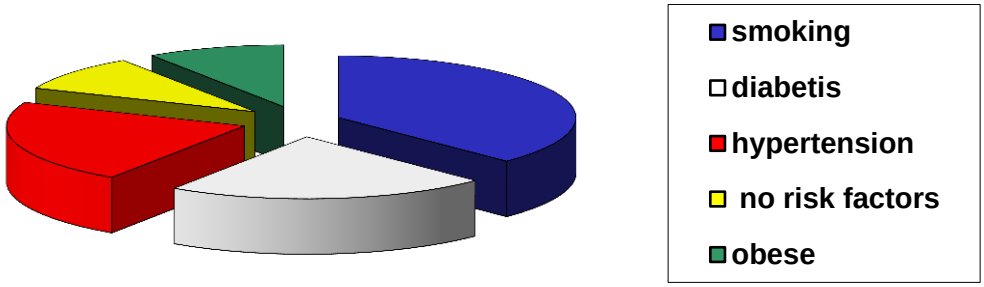


Fig.(3B) Distribution of the study group according to risk factors

Table (4B): Analysis of the diastolic function in the 1st &2nd assessment:

	Normal		Grade 1		Grade 2		Grade 3	
	No.	*%*	*No.*	*%*	*No.*	*%*	*No.*	*%*
1st assessment	**11**	**44%**	**10**	**40%**	**2**	**8%**	**2**	**8%**
2nd assessment	**3**	**12%**	**16**	**64%**	**1**	**4%**	**4**	**16%**

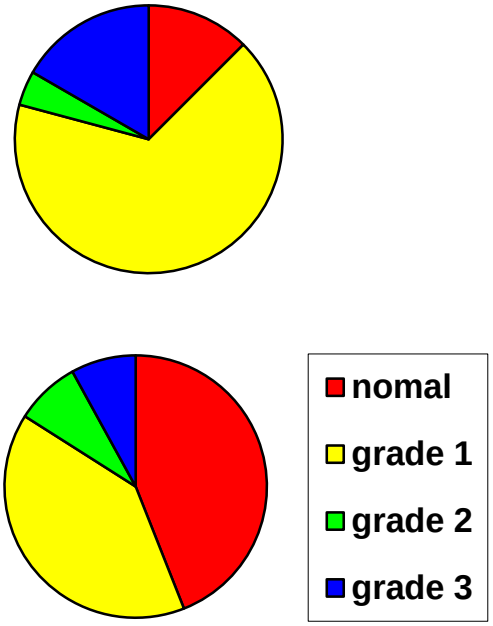


Fig.(4B): Analysis of the diastolic function in the 1st &2nd assessment

Table (5B): Analysis of the systolic function in the 1st &2nd assessment.

	Normal		Impaired		poor	
	No.	*%*	*No.*	*%*	*No.*	*%*
1st assessment	**13**	**52%**	**10**	**40%**	**2**	**8%**
2nd assessment	**5**	**20%**	**8**	**32%**	**11**	**44%**

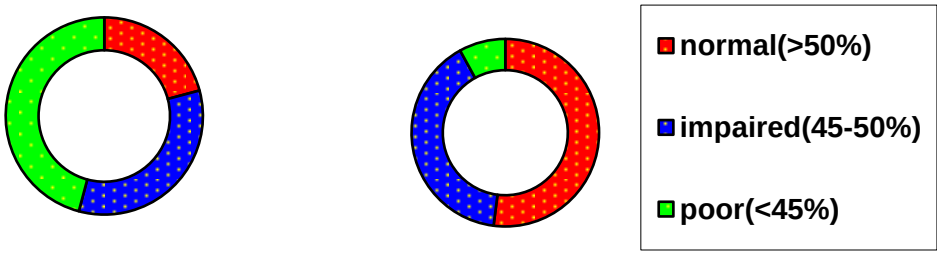


Fig.(5B): Analysis of the systolic function in the 1st &2nd assessment.

Table (6B):Mean of the EF%, EDV, ESV in the 1st &2nd assessment:

Mean EF%		Mean EDV		Mean ESV	
1st	**2nd**	**1st**	**2nd**	**1st**	**2nd**
50%	42%	142	190	76	109

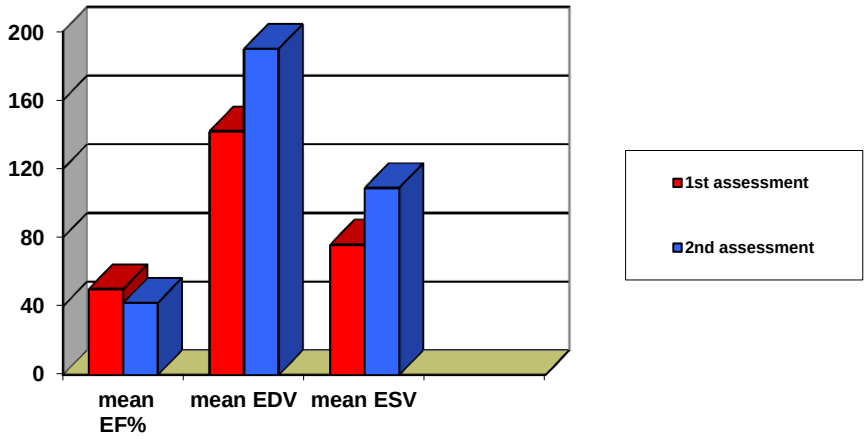


Fig. (6B): Mean of the EF%, EDV, ESV in the 1st &2nd assessment

Table (7B): Mean of the mass in the 1st &2nd reading:

	1st LVM	2nd LVM
Mean	51.98	50.39
S.D	8.2	9.9
Range	30-59	24-58

Mean of the LVMI in the 1st assessment was 51.98gm/m² (range 30-59) and was 50.39 gm/m² (range 24-58) in the 2nd assessment with mass loss 3%.

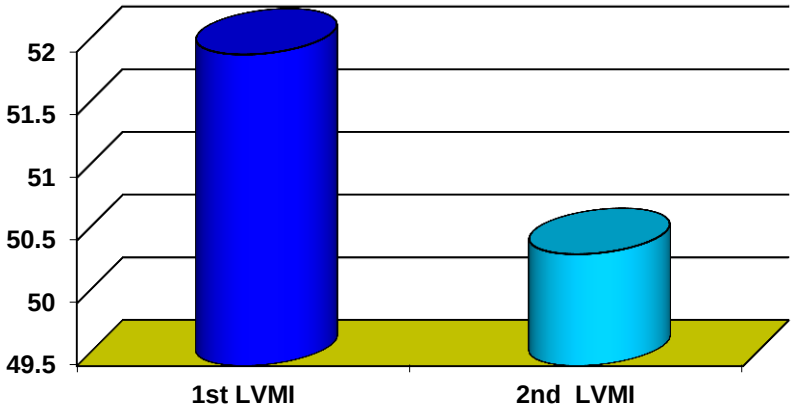


Fig. (7B): Mean of the mass in the 1st &2nd reading

Table (8B) Assessment of MR in the *1st &2nd assessment*:

	Incidence in 1st assessment		Incidence in 2nd assessment		Mean of LVMI		EF%	
	No.(25)	%	No.(24)	%	1st ass.	2nd ass.	1st ass.	2nd ass.
With MR	4	16%	8	32%	46gm/m²	42 gm/m²	36%	35%
without MR	21	84%	16	64%	48 gm/m²	44 gm/m²	40%	38%

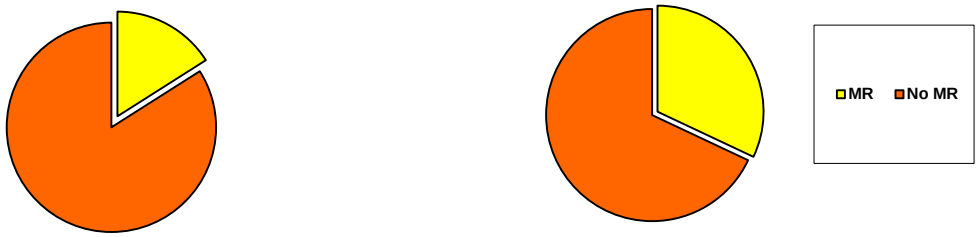


Fig. (8B): Incidence of MR during the 1st & 2nd

During (mild in 8% and moderate in 8%) and in the 2nd assessment the incidences of

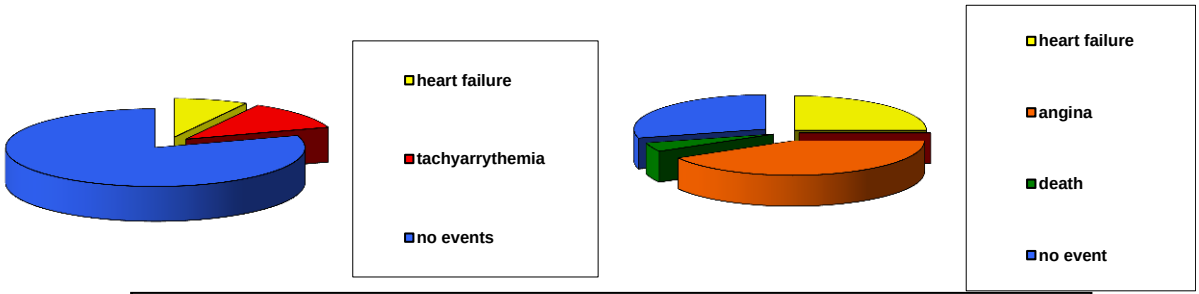
MR increased to 32 %(mild in 16%, moderate in 8% and sever in 8%).

Mean of the LVMI in patients with MR during the 1st assessment was 46 gm/m² and in the 2nd was 42 gm/m² but was 48 gm/m² and 44 gm/m² in the 1st and 2nd assessment respectively in patients without MR

Mean of the EF% in patients with MR in the 1st assessment was 36% and in the 2nd was 35% but was 40% and 38% in the 1st and 2nd assessment respectively in patients without MR

Table (9B): Clinical events in the study group:

	Heart failure		**Angina**		**Tachyarrhythmia**		**No events**		**Death**	
	No.	***%***	***No.***	***%***	***No.***	***%***	***No.***	***%***	***No.***	***%***
Hospital ad.	2	8%	0	0%	3	12%	20	80%	0	0%
Follow up	6	24%	10	40%	0	0%	8	32%	1	4%



Fig(9B)**:** Clinical events during hospital admission and in the follow

In this group the incidence of clinical events during hospital admission was 20% (8% had HF and 12% had tachyarrhythmia)

The clinical follow up after 6 months of discharge; the incidence of clinical events was 68% (4% death, 24% had HF and 40% had recurrent angina that needed rehospitalization)

Table (10B): **Correlation between 1st measured LVMI & EF% and diastolic function:**

Correlation between 1st LVMI and 1st EF and 1st diastolic function		
	r	**p**
EF	0.43	< 0.05
Diastolic function	- 0.34	> 0.05

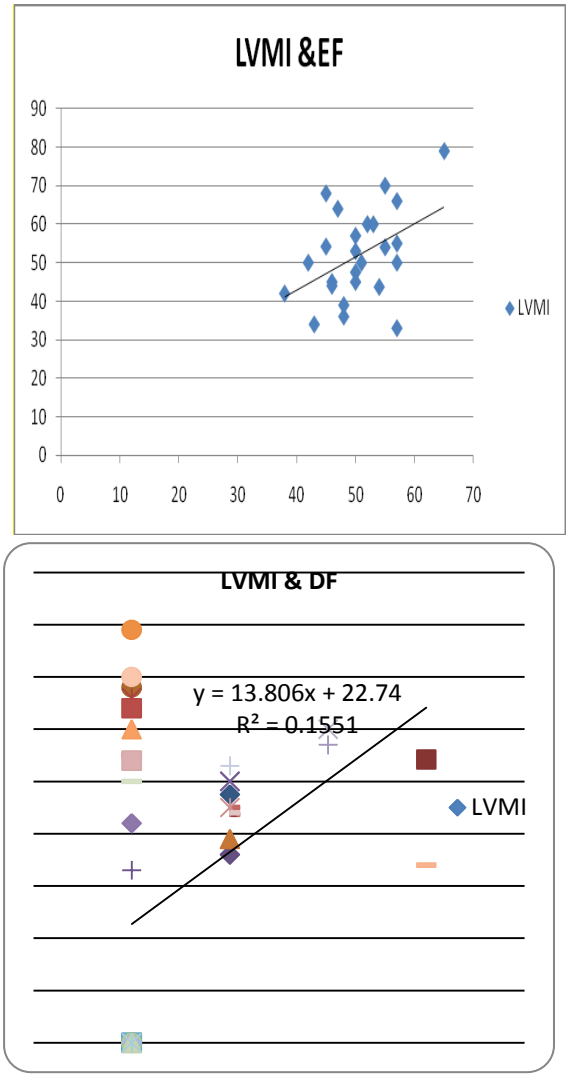


Fig.(10B): Correlation between 1st measured LVMI & EF% and diastolic function

Table and figure 10B show the relation between LVMI and EF% measured 1 week after admission, and it was found that there is positive correlation between them but the result was statistically significant (P<0.05)**.**

Table and figure 10B also show the relation between LVMI and diastolic function measured after one month of admission, and it was found that there is negative correlation between them and the result was statistically insignificant (P>0.05)**.**

Table (11B): **Correlation between 2nd measured LVMI & EF% and diastolic function:**

Correlation between 2nd LVMI and EF & diastolic function		
	r	**p**
EF	0.65	< 0.05
Diastolic function	- 0.45	< 0.05

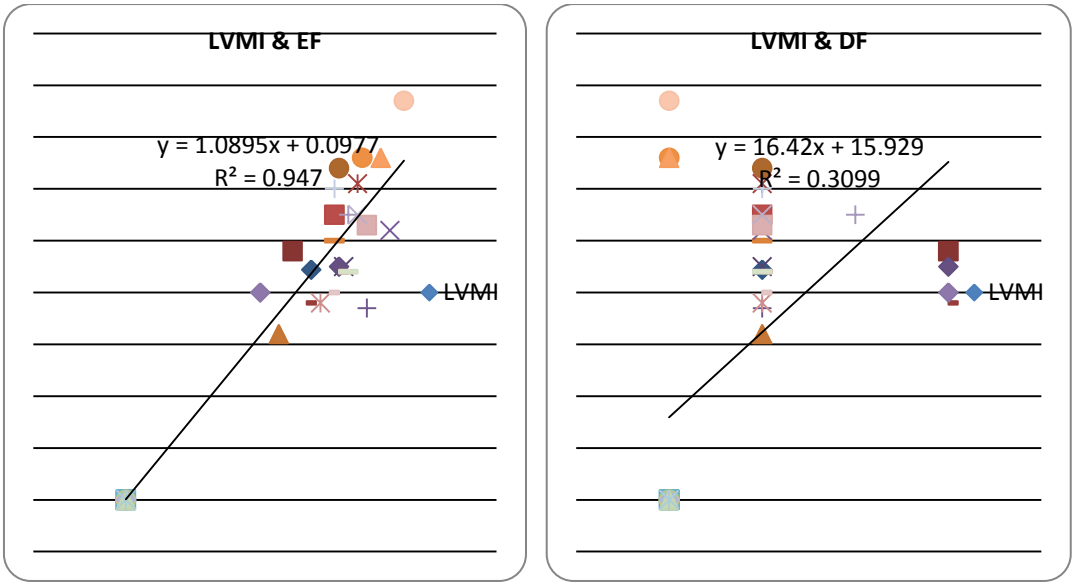


Fig.(11B):Correlation between 2nd measured LVMI & EF% and diastolic function

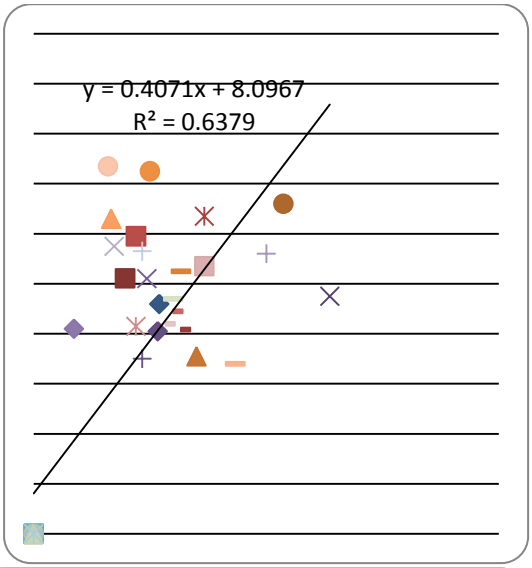
Table and figure (11B) show the relation between the left ventricular mass index, EF% measured after one month of admission, and it was found that there is positive correlation between them and the result was statistically significant (P<0.05)**.**

Also Table and figure (11B) show the relation between the left ventricular mass index, and diastolic function measured after one month of admission, and it was found that there is negative correlation between them and the result was statistically insignificant (P<0.05).

***Table (12B)*: Correlation between LVMI and CPK and angiographic score:**

Correlation between LVMI and SK, CPK and angiographic score		
	r	**p**
CPK	- 0.06	> 0.05
Angio	- 0.45	< 0.05

LVMI & CPK



LVMI & angio

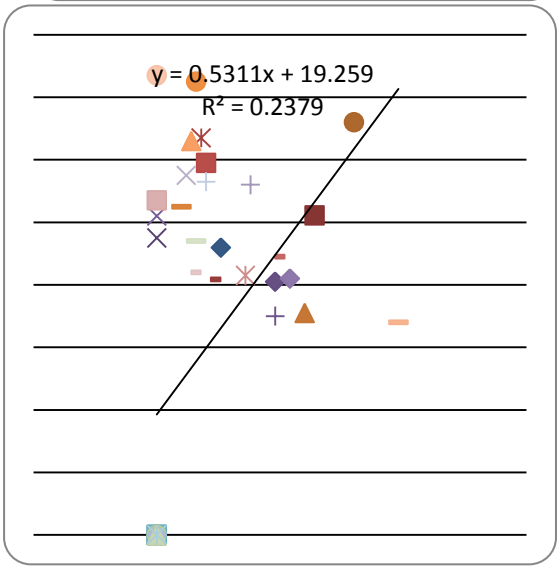


fig (12B): Correlation between LVMI and CPK and angiographic score

Table and figure (12B) show that there is negative correlation between mean of the left ventricular mass of the two measures and the score of the coronary artery lesion and it was statistically significant (P<0.05).

Also there is negative correlation between 1st measured left ventricular mass and CPK-MB but it was statistically insignificant (P>0.05).