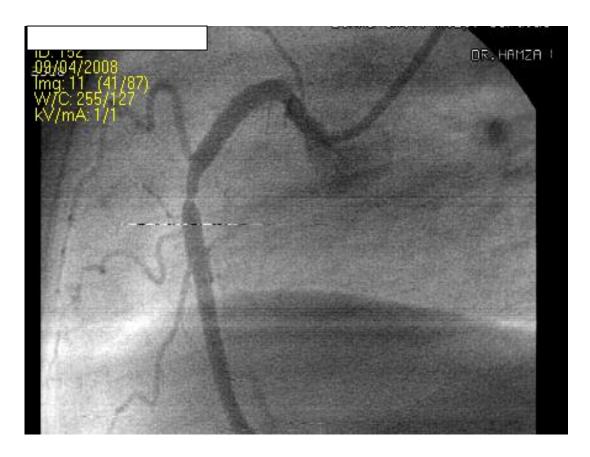
First	assessment	Second assessme	
LVMI=60 gm/m ²	assessment	LVMI=64 gm/m ²	
2 5MHZ-M MAREA = 27.2 CM2 CIRC = 18.5 CM PH_ENGTH = 5.90 CM HMDD-VOL=186. ML MAREA = 44.7 CM2 FIGURE = 24.5 CM ILLENGTH = 8.24 CM Z MOD-VOL=238. ML HJK L TKLMWINSUIT D SOMM/S XMIT: A 20CM 28HZ	LGC OFF	Banha UNIV. HOSPITAL LV Mass A/L SAX Area Endo 25.2cm² SAX Area Epi 41.8cm² LV Length 7.7cm NEW LV Mass 142g	10:56:05 am 20.1cm 20.1cm 20.1cm
ESV= 73	EF%=55		EF%=55
2 5MHZ-M PAREA = 25.3 CM2 CIRC = 20.0 CM PALENGTH = 7.54 CM HEMOD-VOL=73.0 ML BAREA = 41.4 CM2 FUCIRC = 24.8 CM LENGTH = 9.00 CM MOD-VOL=158. ML 50MM/S XMIT: A	Main Menu Analysis 1: Cardiac 2-D Calculations 5 28.1 ESV(sp-el) 72.1 EDV(sp-el) 162. EF(sp-el) 555 CO(sp-el) SV(sp-el) 39.9 SI(sp-el) ESV(MOD-bp) LVLS / diff EF(MOD-bp) CO(MOD-bp) CO(MOD-bp) SV(MOD-bp)	Banha UNIV. HOSPITAL Simpson's A4C - Diastole 133ml A4C - Systole 60ml A2C - Diastole Heart Rate NEW Dias Vol 133ml Sys Vol 60ml EF 55%	17 May 07 TIs 1.3 MI 1.1 10:53:06 am 20.1cn
Diastolic function: nor	mal	Diastolic function: grade 1	
2.5MHZ-M ROC 3/0/E EWLETT-PACKARD DULT CARDIAC 50MM/S MIT:B 2.5MHZ 0CM ATE: 11:6CM EN: 0.25CM e: 0	75 V= 28 8 BC	Banha UNIV. HOSPITAL P4-2 A.Card/Gen Map 3 150dB/C3 Perist Low Fr Rate High 2D Opt-Pen 60 - 40 cm/s4060 -	10:51:10 am Fr #103 20.2c SV Angle 0* Dep 10:9cm Size 4.0 mm Freq 2.0 MHz WF Low Dop 75% Map 3 PRF 37:31 Hz - 40 - 20 - cm/s4060



(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.

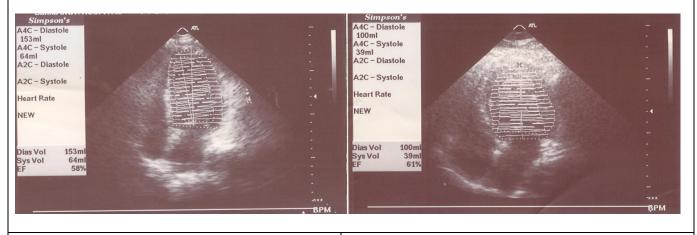
First assessment

LVMI=64gm/m²

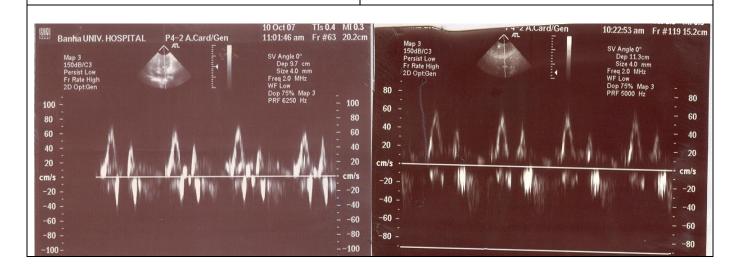
LVMI=65gm/m²

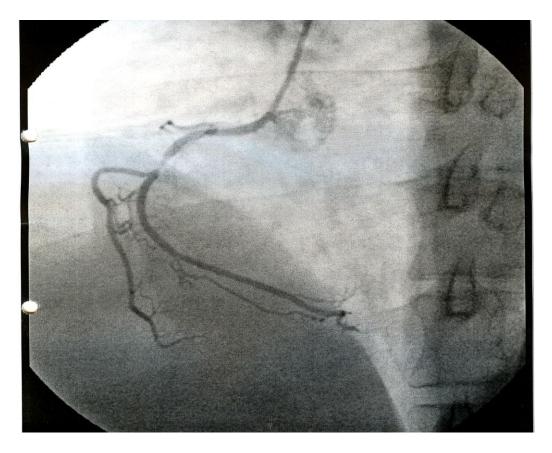


EDV=153 ESV=64 EF%=58 ESV= 39 EF%=61



Diastolic function: normal Diastolic function: normal

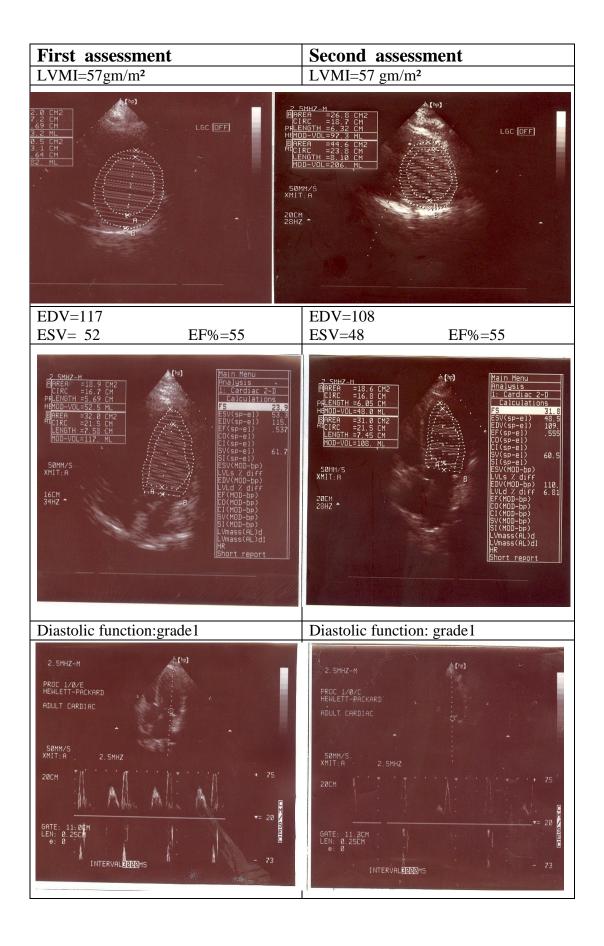


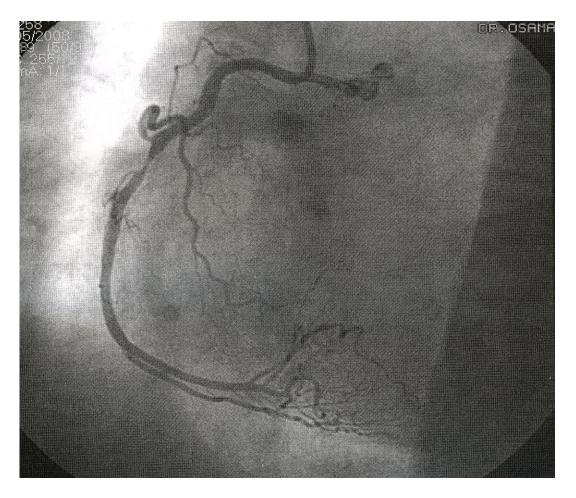


(case no. 57) male patient, 45y old, presented with inferior MI but didn't receive SK.

Echo: normal systolic function& diastolic dysfunction and LVMI. *Angio*: subtotal occlusion of the midsegment RCA.

Clinical follow up: normal.





(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.

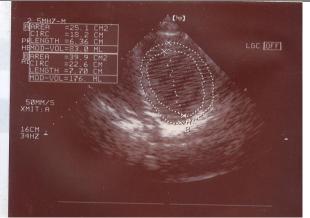
Angio: subtotal occlusion of the midsegment RCA Clinical follow up: normal.

First assessment Second assessment

LVMI=50gm/m²

LVMI=45 gm/m²



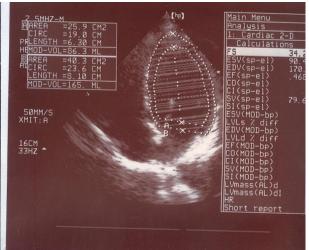


EDV=90 ESV= 47 EDV=165 ESV= 86

V= 86 EF%=46

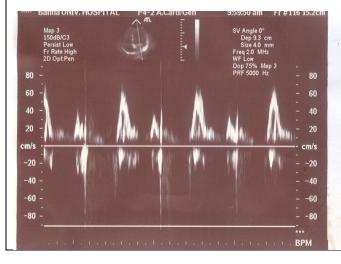


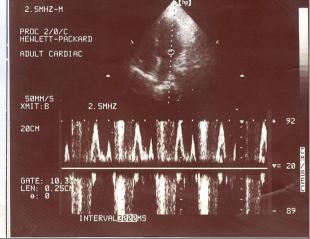
EF%=48

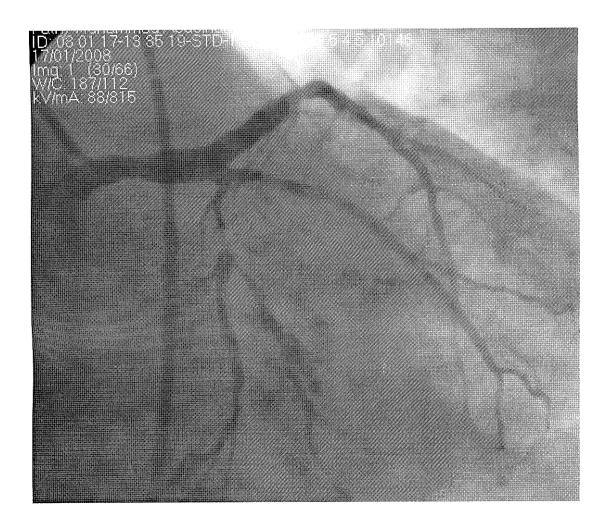


Diastolic function: grade 3

Diastolic function: grade 3







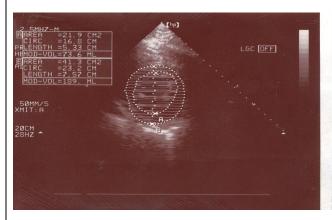
(case no.1) Male patient, 45y old, smoker presented with inferior MI and received SK.

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

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

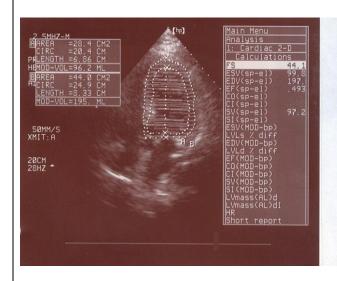
Clinical follow up: HF (NYHA II).

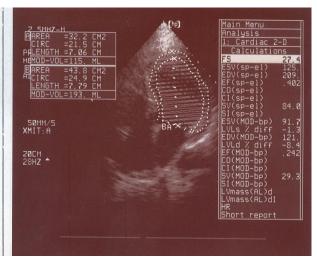
First assessment	Second assessment
LVMI=55 gm/m ²	LVMI=45 gm/m ²



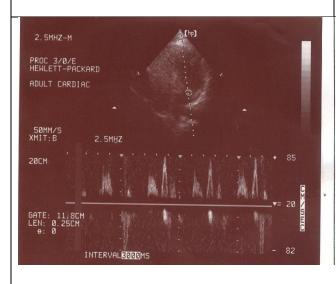


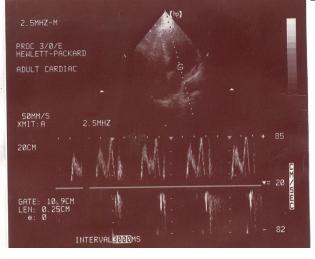
EDV=195		EDV=193	
ESV=96	EF%=49	ESV=115	EF%=40

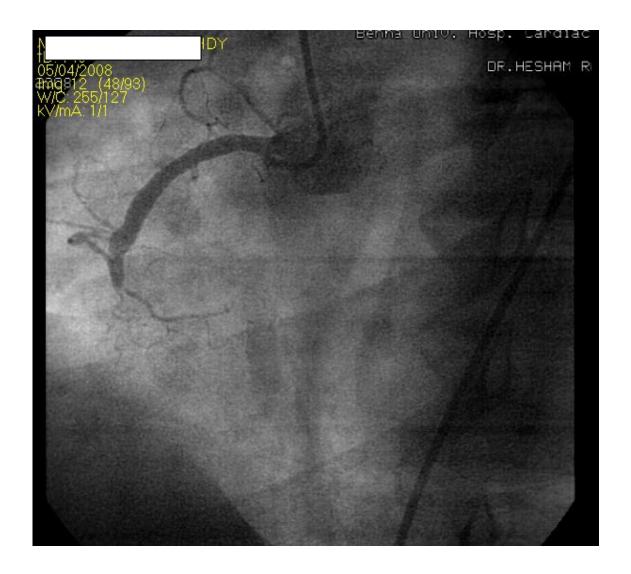




Diastolic function: grade 1 Diastolic function: grade 2







(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.

First assessment **Second assessment** LVMI=46gm/m² LVMI=49gm/m² LGC OFF LGC OFF EDV=109 EDV=155 ESV= 40 ESV=60 EF%=66 EF%=60 50MM/S XMIT:A 50MM/S XMIT:A 20CM _ 20CM _ Diastolic function: grade 1 Diastolic function: grade 1 PROC 3/0/E HEWLETT-PACKARD ADULT CARDIAC



(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.

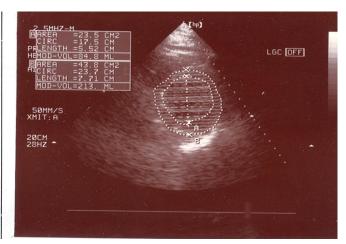
Angio: total occlusion of the RCA with TIMI grade 0.

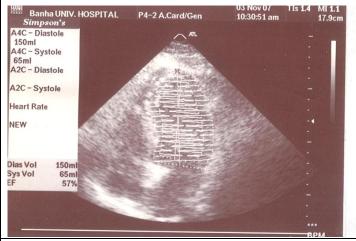
Clinical follow up: normal.

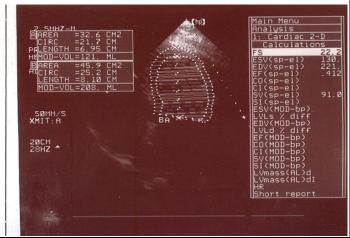
Example of the prognostic value of LVMI when EF≥ 50%

First assessment LVMI=58 gm/m² LVMI=49 gm/m²

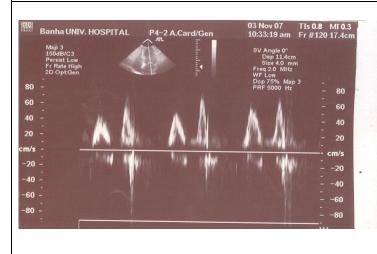


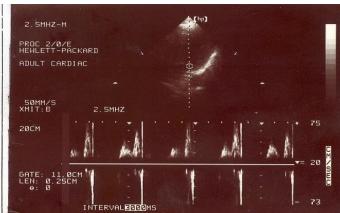


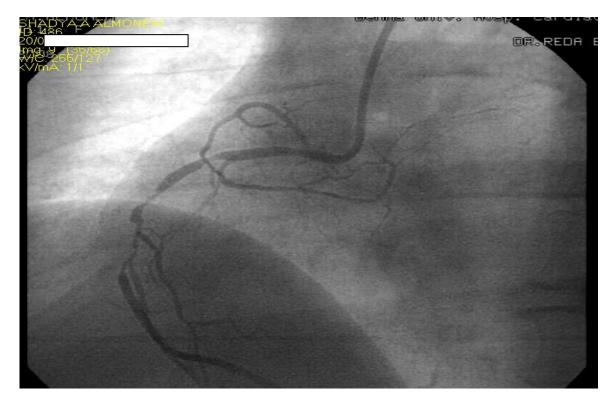


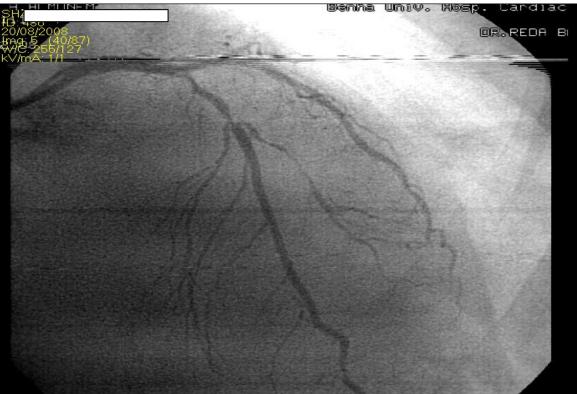


Diastolic function: normal Diastolic function: grade (1) dysfunction









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

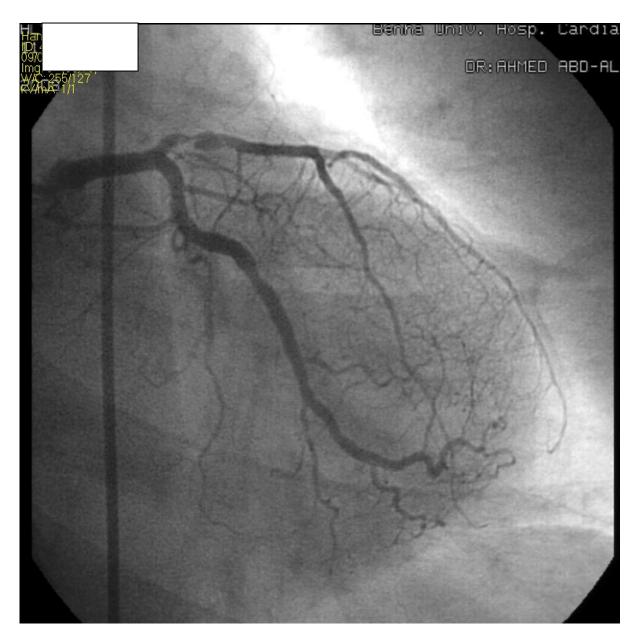
Echo: reduced LVMI with normal systolic and diastolic function in the 1st assessment with reduced LVMI, systolic and diastolic function in the 2nd assessment, with mild MR

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%

Second assessment First assessment LVMI=46.5gm/m² LVMI=24 gm/m² Banha UNIV. HOSPITAL LV Mass A/L P4-2 A.Card/Gen SAX Area Endo 23.1cm² SAX Area Epi 36.3cm² LV Length 7.2cm NEW LV Mass 105g EDV=138 $EDV=\overline{137}$ ESV = 64EF%=54 ESV= 77 EF%=42 9:50:24 am 16.0cm Banha UNIV. HOSPITAL P4-2 A.Card/Gen A4C - Diastole 138ml A4C - Systole 64ml A2C – Diastole A2C - Systole 50MM/S XMIT: A Heart Rate NEW Dias Vol Diastolic function: grade 1 dysfunction Diastolic function: normal Banha UNIV. HOSPITAL PROC 1/0/C HEWLETT-PACKARD 40 50MM/S XMIT: A -40

INTERVAL 3000MS



(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

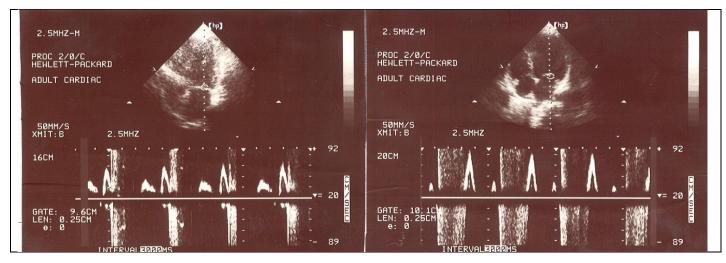
clinical follow up: HF(NYHA III)

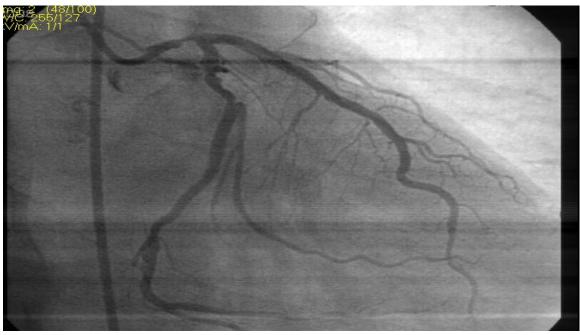
Example of the prognostic value of LVMI when EF \geq

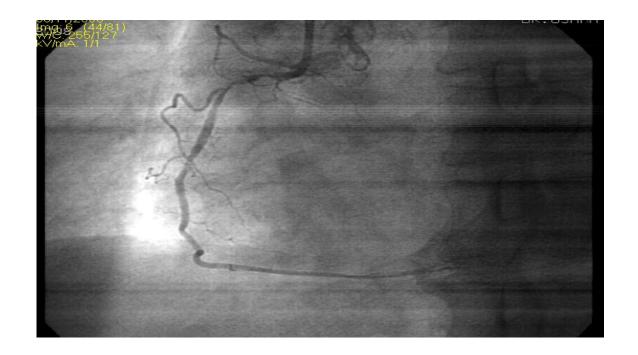
First assessment LVMI=43.7 gm/m ²	Second assessment LVMI=38 gm/m ²
2 SMHZ-M PAREA = 28.6 CM2 CIRC = 19.0 CM PHENGTH = 5.90 CM HEMOD-VOL=116. ML BAREA = 44.6 CM2 HLENGTH = 7.71 CM HOD-VOL=223. ML SOMM/S XMIT: A 20CM 28HZ	7 SMHZ-M ARREA = 27.2 CM2
EDV=101 ESV= 54 EF%=54	EDV=190 ESV= 115 EF%=39
2 SMH7-M ARREA = 18.9 CM2 CIRC = 16.3 CM PLENGTH = 6.48 CM HBMOD-VOL=45.5 ML BAREA = 29.8 CM2 MCIRC = 21.7 CM LENGTH = 7.33 CM MOD-VOL=101. ML 50MM/S XMIT: A 16CM 33HZ BAREA B B	Agree

Diastolic function: grade (1)dysfunction

Diastolic function: grade (3)dysfunction:







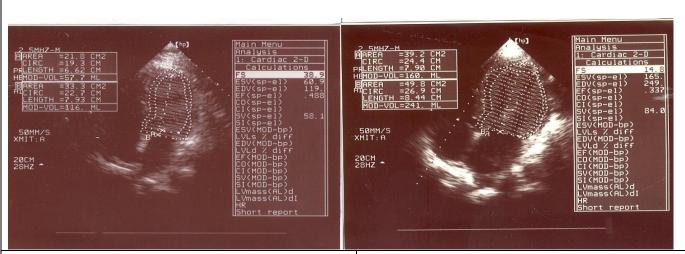
(case no. 5)Male patient, 55 y, smoker presented with acute chest pain, $\ensuremath{\mathsf{NSTEMI}}$

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)

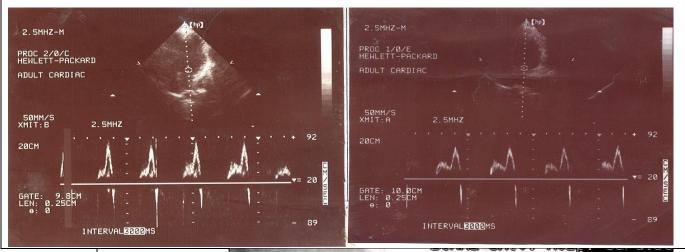
Example of the prognostic value of LVMI when EF≥ 50%

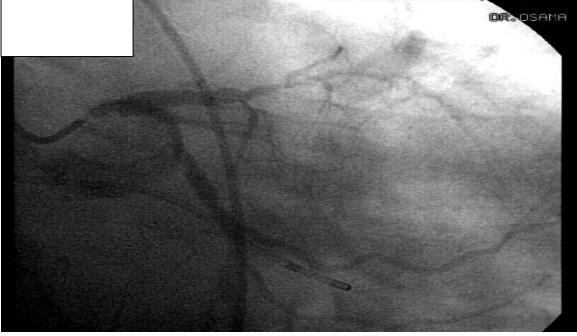
First	assessment	Second as	ssessment
LVMI=39 gm/m ²		LVMI=32 gm/m ²	
2 SMH7-M BARREA = 22.7 CM2 CIRC = 17.7 CM PHENGTH = 5.82 CM HENDD-VOL=74.5 ML BARREA = 37.9 CM2 FUCINC CM FUCINC CM HOD-VOL=162.2 ML HJK L SOMM/S XMIT: A 20CM	LGC OFF	2 5MH7-M ARREA = 19.4 CM2 CIRC = 15.7 CM PPLENGTH = 4.77 CM PPLENGTH = 4.77 CM BAREA = 32.4 CM2 PTCIRC = 20.2 CM LENGTH = 6.42 CM MOD-VOL=138. ML SOMM/S XHIT: A 16CM 34HZ	LGC OFF
EDV=116		EDV=241	
ESV= 57	EF%=50	ESV= 160	EF%=33

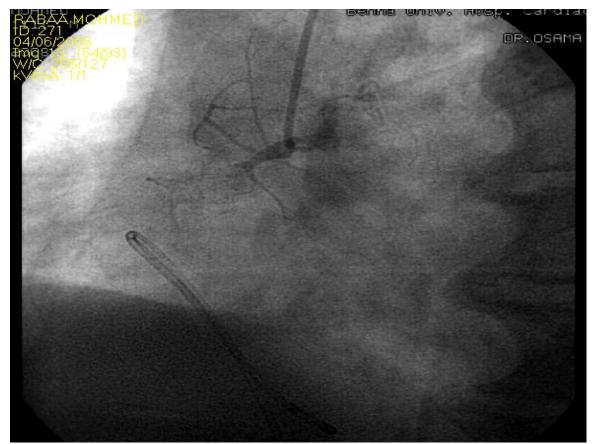


Diastolic function: grade (1)dysfunction

Diastolic function: grade (1)dysfunction





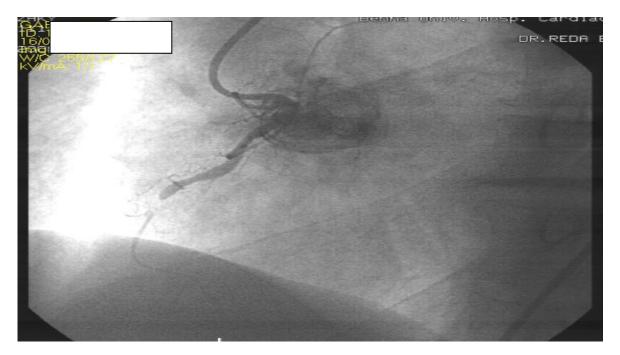


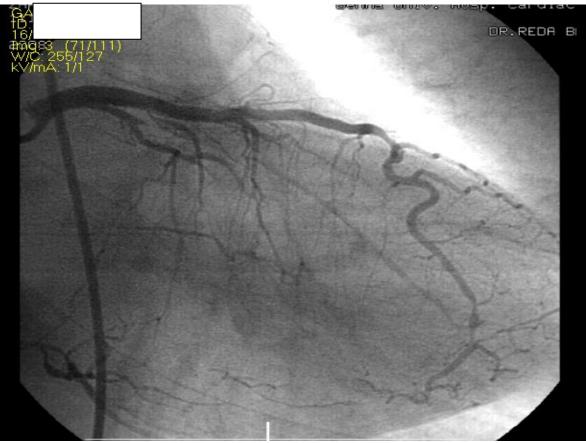
(Case no. 10)Male patient, 62y, smoker presented with acute chest pain *Echo*: the 1st assessment shows significantly reduced LVMI with normal ESV, EDV ,impaired systolic function and grade 1 diastolic dysfunction but in the 2nd assessment there was dilated ESV, EDV and reduced EF%, with diastolic dysfunction, 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)

First assessment Second assessment LVMI= 54 gm/m² LVMI= 48 gm/m² SAX Area Endo 30.4cm² 21.3cm² SAX Area Epi 45.8cm² LV Length SAX Area Epi 37.0cm² LV Length 7.0cm NEW 8.2cm NEW V Mass LV Mass 139g 123g EDV=203 EDV=267 ESV= 130 EF%=36 ESV= 147 EF%=45 - Systole ml - Diastole 2C - Systole - Systole Diastolic function: grade (3) dysfunctionp Diastolic function: grade (3) dysfunction 40 20 -20 -40 -60 ВРМ





(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

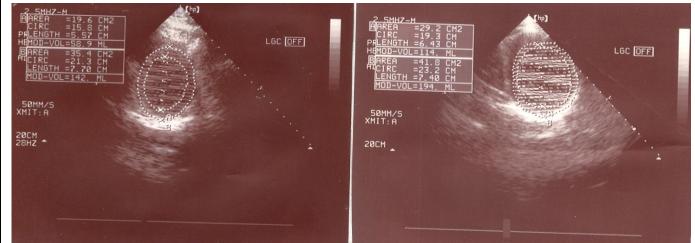
LVMI=55 gm/m² LVMI=55 gm/m² Loc OFF	First	assessment	Second asses	ssment
EDV=210 EDV=210 ESV= 117 EF%= 45% EDV=212 ESV= 114 EF%=46 EDV=212 ESV= 114 EFF==100EVIDENTS EFF==100EVID	LVMI=60 gm/m ²		LVMI=55 gm/m ²	
ESV= 117 EF%=45% ESV= 114 EF%=46 Color	HEMOD-VOL=208. ML BAREA =63.7 CM FUCIRC =28.7 CM LENGTH =8.88 CM MOD-VOL=371. ML 50MM/S XMIT: 8	LGC OFF	AREA	
## AREA = 33.2 CH2	EDV=210		EDV=212	
### ### ##############################	ESV= 117	EF%= 45%	ESV= 114	EF%=46
Diastolic function: normal Diastolic function: grade (1) dysfunction	MAREA =33.2 CM2 CIRC =21.9 CM PRIENGTH =7.63 CM HEMDD-VOL=117. ML BAREA =46.9 CM2 HCIRC =26.4 CM LENGTH =8.30 CM MOD-VOL=210. ML 50MM/S XMIT:A	Analysis 1: Cardiac 2-D Calculations FS 22.4 ESV(sp-el) 123. EDV(sp-el) 225. EF(sp-el) . 453 CO(sp-el) CI(sp-el) SV(sp-el) ESV(MOD-bp) LVLs / diff EF(MOD-bp) LVLd / diff EF(MOD-bp) CO(MOD-bp) SV(MOD-bp) SV(MOD-bp) SV(MOD-bp) SV(MOD-bp) SV(MOD-bp) SV(MOD-bp) SV(MOD-bp) LVLMass(AL)d	HEMOD-VOL=114, ML BAREA = 45.8 CM2 FICIRC = 25.2 CM LENSTH = 8.19 CM MOD-VOL=212, ML 50MM/S XMIT: A B	Analysis 1: Cardiac 2-D Calculations FS 21,0 ESV(sp-el) 116. EDV(sp-el) 217. EF(sp-el) .465 CD(sp-el) .465 CD(sp-el) .181. SI(sp-el) ESV(MDD-bp) LVLS ½ diff EDV(MDD-bp) LVL ½ diff EF(MDD-bp) CD(MOD-bp) CI(MOD-bp) SI(MDD-bp) SI(MDD-bp) SI(MDD-bp) LVmass(AL)d LVmass(AL)dI HR
Plastone function. grade (1) dystanetion	Diastolic function: nor	rmal	Diastolic function: grade (1) d	lysfunction





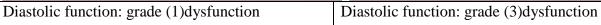
(case no.4)Male patient, 50 y, smoker presented with acute chest pain *Echo*: the 1st & 2nd assessment show lower normal LVMI, dilated ESV, EDV with impaired systolic function. *Angio*: total occlusion of the proximal LAD.

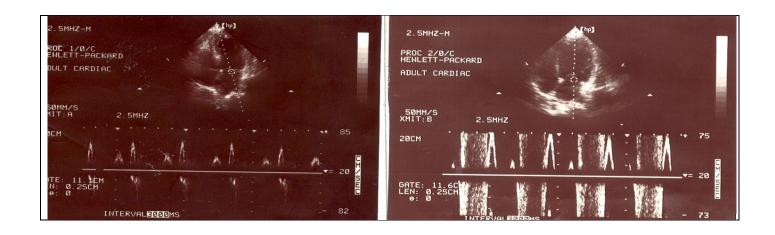
First assessment	Second assessment	
LVMI=36 gm/m ²	LVMI=45 gm/m ²	



EDV=144 EDV= 221 ESV= 78 EF%= 48 ESV= 118 EF%=46









(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.

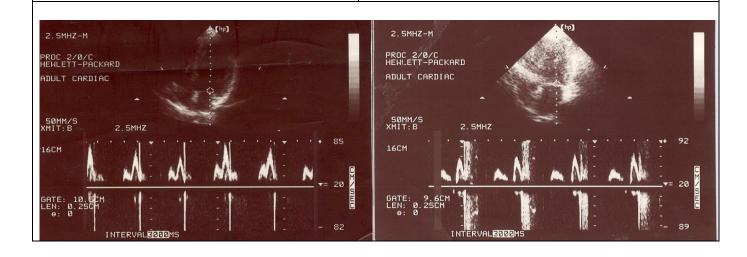
Cases of group B

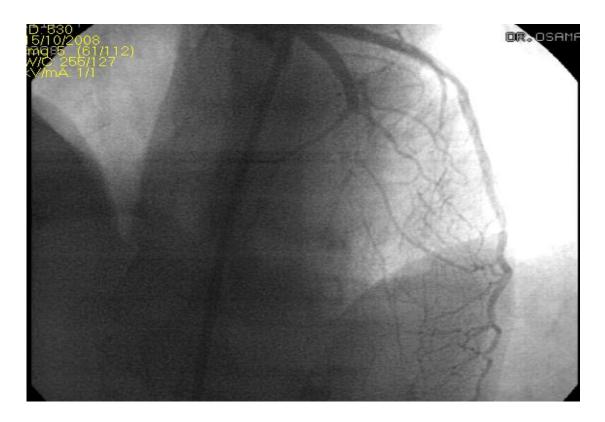
First as	ssessment	,	Second assessment
LVMI=33 gm/m ²		LVMI=37 gm/r	m²
2 5MHZ-M BAREA = 19.6 CM2 CIRC = 15.7 CM PHLENGTH = 5.41 CM HEMOD-VOL=61.4 ML BAREA = 32.8 CM2 HICIRC = 20.3 CM LENGTH = 6.86 CM MOD-VOL=135. ML 58MM/S XMIT: A	LGC OFF	2 5MHZ-M MAREA = 24.2 CIRC = 17.8 PREENGTH = 5.79 HEMDD-VOL=86.8 BAREA = 37.5 MICIRC = 21.8 LENGTH = 7.04 MOD-VOL=171.	ML CONTRACTOR OF THE CONTRACTO
EDV=134		EDV=167	
ESV= 82	EF%=38	ESV=117	EF%=29



Diastolic function: grade (1)dysfunction

Diastolic function: grade (1)dysfunction





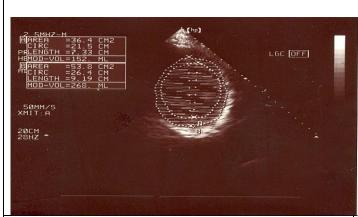
(case no.13)Female patient, 60y, DM,HTN presented with acute chest pain

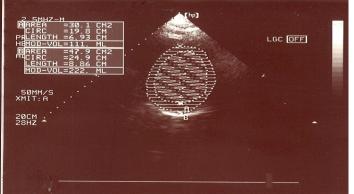
Echo: the 1st & 2nd assessment show decreased LVMI, dilated ESV, EDV with impaired systolic function and diastolic function.

Angio: total occlusion in the mid LAD.

Cases of group B

First assessment	Second assessment	
LVMI=64 gm/m ²	LVMI=55 gm/m ²	



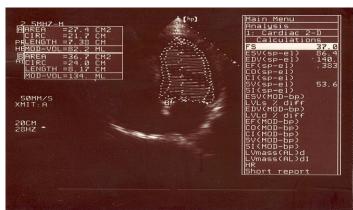


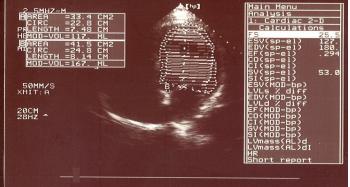
EDV=134 ESV=82

EF%=40

EDV= 167 ESV= 117

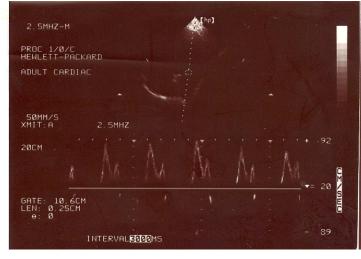
EF%=41

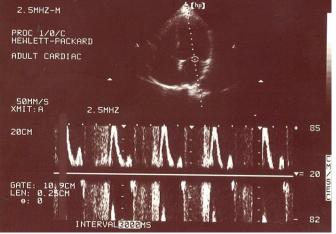


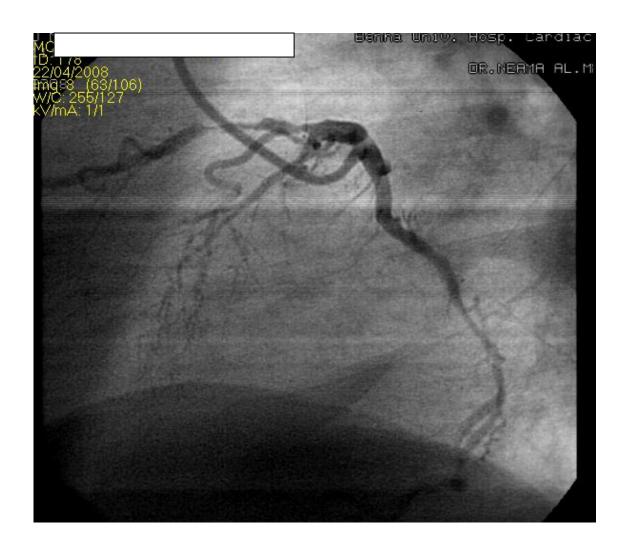


Diastolic function: : grade 3

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% \geq 50%.

Analysis of group (A) Extensive anterior myocardial

infarction:

Table (1A): <u>Age distribution:</u>

20-30y	31-40y	41-50y	51-60y	> 60 y		Age
				Ma	an	52.4
2	3	6	9	5	an	32.4
				S.	D	10.4
8%	12%	24%	36%	2 0% Rai	10e	28-69
	2	2 3	2 3 6	2 3 6 9	2 3 6 9 5 S.	2 3 6 9 <u>5 Mean</u> S.D

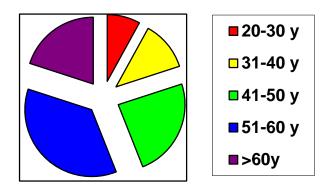


Fig.(1A) Age distribution

Table (2A): Gender distribution:

	Male	Female
No.	22	3
%	88%	12%

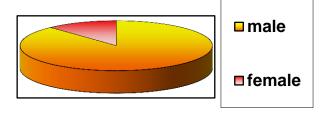


Fig.(2A) gender distribution

Table (3A): <u>Distribution of the study group according to risk factors:</u>

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

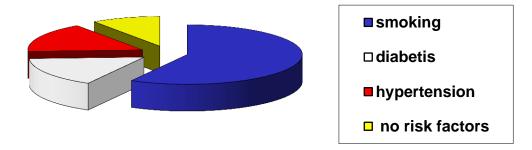
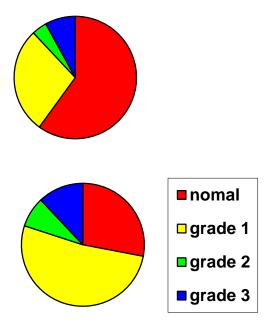


Fig.(3A) Distribution of the study group according to risk factors

Table (4A): Analysis of the diastolic function in the 1^{st} & 2^{nd} 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		Impa	aired	poor		
	No.	%	No.	%	No.	%	
1st assessment	10	40%	7	28%	8	32%	
2nd assessment	7	28%	9	36%	9	36%	

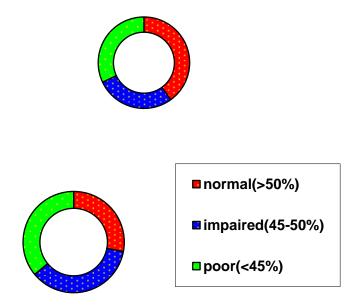
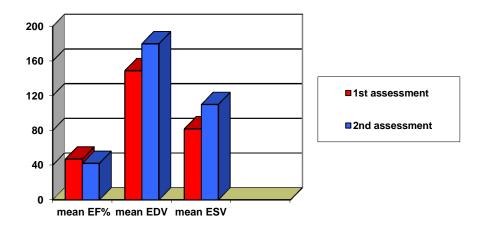


Fig.(5A): Analysis of the systolic function in the $1^{st} \& 2^{nd}$ assessment

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

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



 $\emph{Fig.}(\emph{6A})$:Mean of the EF%, EDV, ESV in the 1^{st} & 2^{nd} assessment

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

	1 st LVM	2 nd 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/m^2 (range 30-59) and was 43 gm/m^2 (range 24-58) in the 2nd assessment with mass loss 2.02%

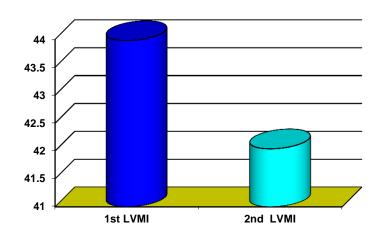
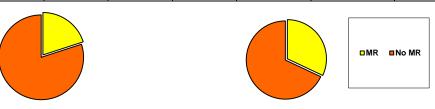


Fig. (7A): Mean of the mass in the 1st &2nd reading

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/m ²	35 gm/m ²	36%	35%
without MR	20	80%	17	68%	47 gm/m ²	40 gm/m ²	40%	38%



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

in 12% and moderate in 8%) and in the 2nd assessment the incidence

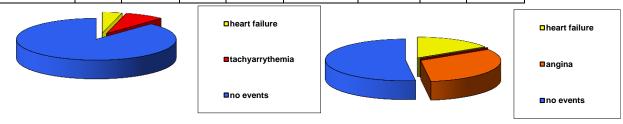
of MR increased to 32% (mild in 20%, moderate in 8% and sever in 4%).

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%



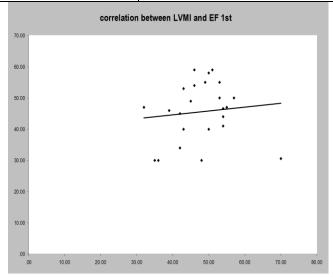
Fig(9A): Clinical events during hospital admission and in the follow

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): Correlation between 1st measured LVMI & EF% and diastolic function:

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



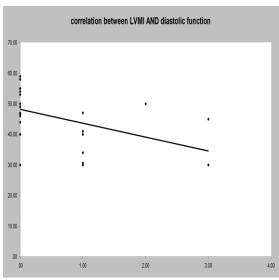


Fig.(10A): Correlation between 1st measured LVMI & EF% and diastolic function

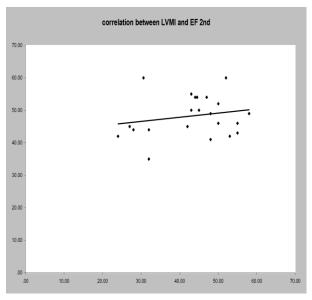
Table and figure 10A show the relation between the LVMI and EF% measured 1week after admission, and it was found that there is positive correlation between them and the result is

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			



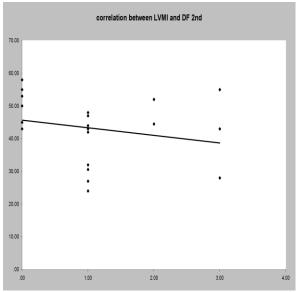


Fig.(11A):Correlation between 2nd measured LVMI & EF% and diastolic function:

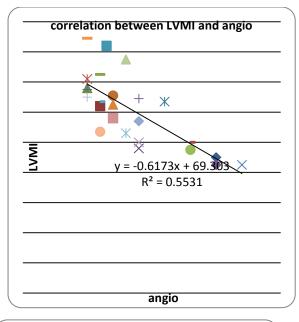
Table and figure (11A) show the relation between the left ventricular mass index and EF% measured after one month of admission, and it was found that there is positive correlation between them and the result is statistically significant (p < 0.05).

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 betw	Correlation between mean LVMI & CPK and angiographic score					
	r	р				
СРК	-0.29	> 0.05				
Angio	- 0.30	< 0.05				



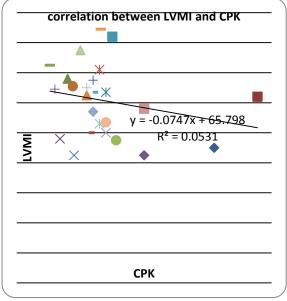


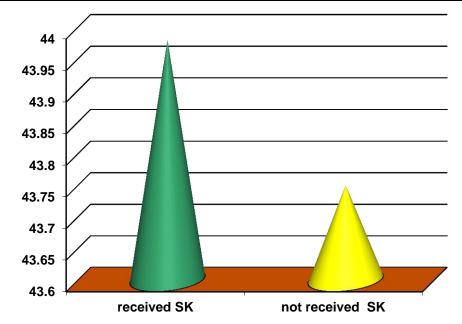
fig (12A): Correlation between LVMI and CPK and angiographic score

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	didn't	t	p
	(20)	receive (4)		
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	f	p
			(C)		
% 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

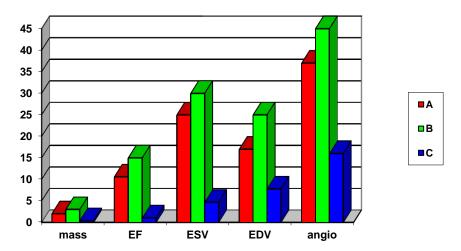


Fig. (1D): Echocardiographic and Angiographic analysis

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)		Grou	Group (B)		p (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%

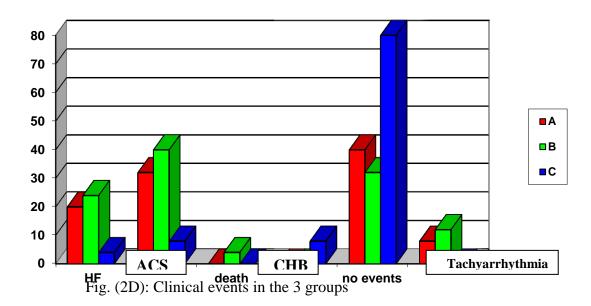


table and fig.(2D)show the difference in the incidence of clinical events during the hospital admission and 6months follow up in between the 3groups: it was found that the incidence of HF, recurrent angina and death is higher in group (B) and it is statically significant (p<0.05).

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 /m ²	54 gm /m ²	65 gm /m ²
	% of EF≥ 50%	36%	44%	72%
2nd assessment	Mean of LVMI	39 gm /m ²	48 gm /m ²	64.2 gm /m ²
	% of EF ≥50%	28%	20%	68%
p		<0.05	<0.05	>0.05

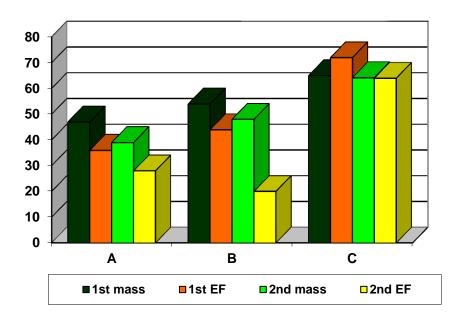


Fig. (1E): The prognostic value of LVMI when EF% \geq 50%

Table and fig. (1E) it is clear that low LVMI than the normal value in patients with $EF \ge 50$ % 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:

20-30v	31-40v	41-50v	51-60v	>60v		Age
20 30y 31 40y 41 30y 31 00y 200,	31 40y	41 50y	-00y	Mean	51.5	
0	4	10	5	6	S.D	10.9
Ü	•	10	5	O	Range	35-77
0%	16%	40%	20%	24%		
_	0 0%	0 4	0 4 10	0 4 10 5	0 4 10 5 6	0 4 10 5 6 S.D Range

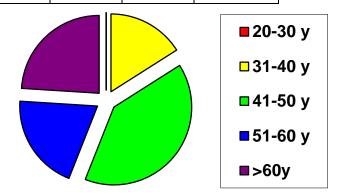


Fig.(1C) Age distribution

Gender distribution:

	Male	Female
No.	16	9
%	64%	36%

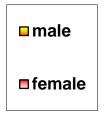


Fig.(2C): gender distribution

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%

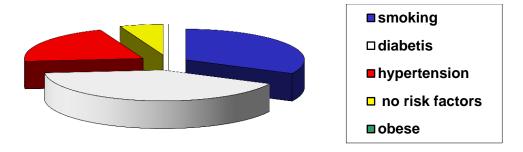


Fig.(3C): Distribution of the study group according to risk factors

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

	No	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%	

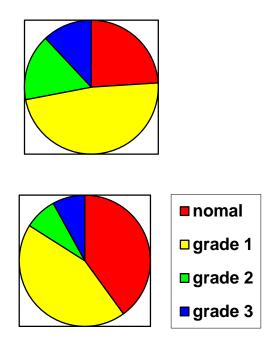


Fig.(4C): Analysis of the diastolic function in the 1st &2nd assessment

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

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

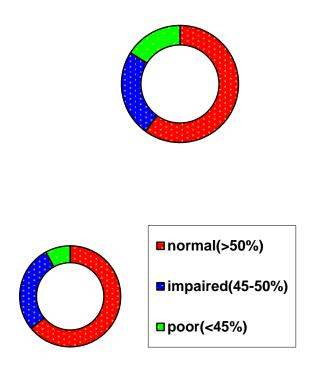


Fig.(5C): Analysis of the systolic function in the 1^{st} &2nd assessment

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

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

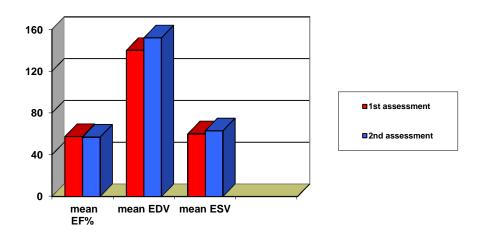


Fig. (6C): Mean of the EF%, EDV, ESV in the 1st &2nd assessment

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

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

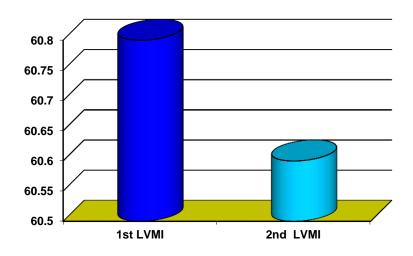
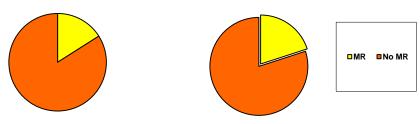


Fig. (7C): Mean of the mass in the 1st &2nd reading

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

	Incidence assessme		Incidence assessme			LVMI	VMI EF%	
	No.(25)	%	No.(25)	%	1st ass.	2nd ass.	1st ass.	2nd ass.
With MR	4	16%	5	20%	60gm/m ²	55 gm/m ²	59%	50%
without MR	21	84%	20	80%	64 gm/m ²	52 gm/m ²	60%	51%



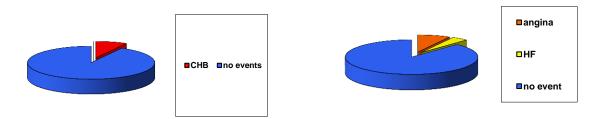
During *Fig. (8C):* Incidence of MR during the 1st & 2nd R (mild in 8% and moderate in 8%) and in the 2nd assessment the incidences of MR increased to 20 % (mild in 12% and moderate in 8%).

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): Clinical events in the study group:

	Heart	failur	ilur Angina		СНВ		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%



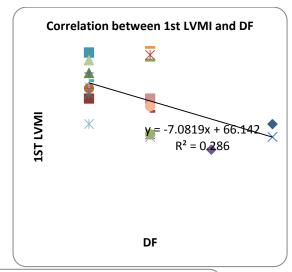
Fig(9C): Clinical events during hospital admission and in the follow

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 1^{st} measured LVMI & EF% and diastolic function:

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



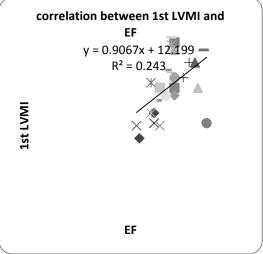


Fig.(10C): Correlation between 1st measured LVMI & EF% and diastolic function

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					

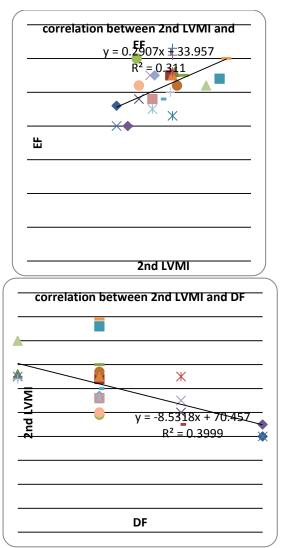


Fig.(11C): Correlation between 2nd measured LVMI & EF% and diastolic function

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	р		
СРК	- 0.23	> 0.05		
Angio	- 0.74	< 0.05		

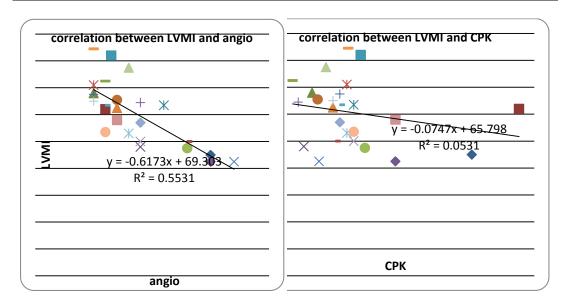


fig (12C): Correlation between LVMI and CPK and angiographic score

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		

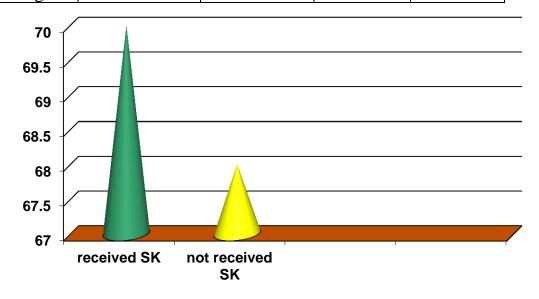


fig (13C): Correlation between LVMI and CPK and angiographic score

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 20-	21 40	41 50	F1 (O			
	20-30y	31-40y	41-50y	51-60y	>60y		Age
A 7.	0	2	2	1.1	10	Mean	67.96
No.	U	2	2	11	10	S.D	8.53
%	0%	8%	8%	44%	40%	Range	40-74
70	0 70	370	070	, 0	1070		

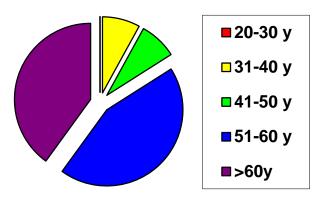


Fig.(1B) Age distribution

Table (2B): Gender distribution:

	Male	Female
No.	18	7
%	72%	28%

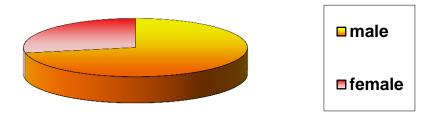


Table (3B): <u>Distribution of the study group according to risk</u> <u>factors</u>:

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

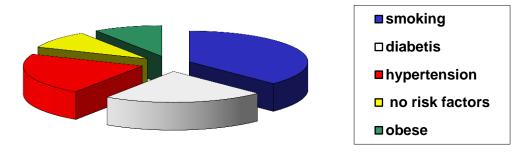


Fig.(3B) Distribution of the study group according to risk factors

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%

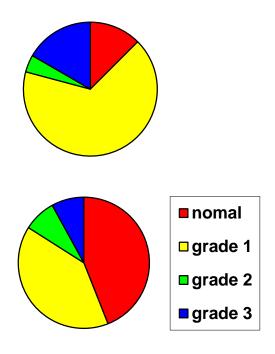


Fig.(4B): Analysis of the diastolic function in the 1st &2nd assessment

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

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

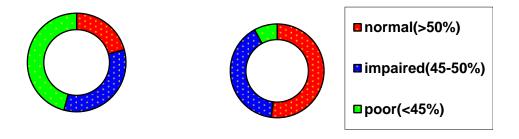


Fig.(5*B*): Analysis of the systolic function in the 1st &2nd assessment.

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

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

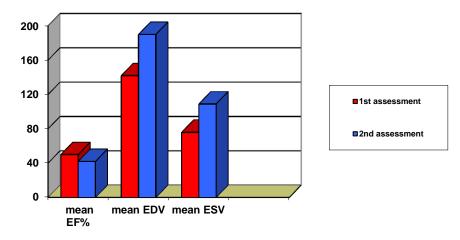


Fig. (6B): Mean of the EF%, EDV, ESV in the 1^{st} & 2^{nd} assessment

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

	1 st LVM	2 nd 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/m^2 (range 30-59) and was 50.39 gm/m^2 (range 24-58) in the 2nd assessment with mass loss 3%.

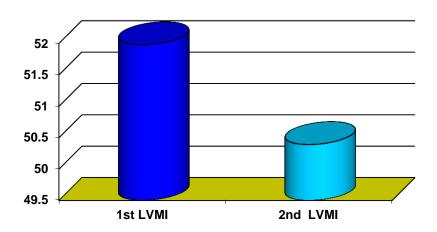
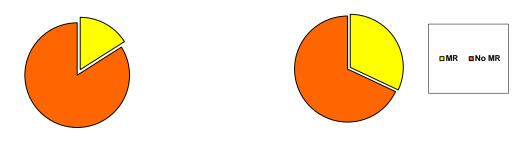


Fig. (7B): Mean of the mass in the 1st &2nd reading

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/m ²	42 gm/m ²	36%	35%
without MR	21	84%	16	64%	48 gm/m ²	44 gm/m ²	40%	38%



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

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

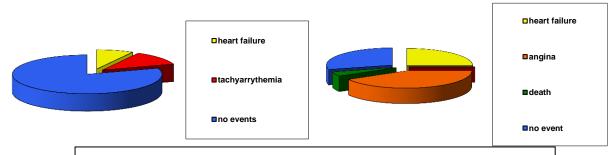
MR increased to 32 %(mild in 16%, moderate in 8% and sever in 8%).

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		Tachyarrh ythmia		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 1 st LVMI and 1 st EF and 1 st diastolic function					
	r	p			
EF	0.43	< 0.05			
Diastolic function	- 0.34	> 0.05			

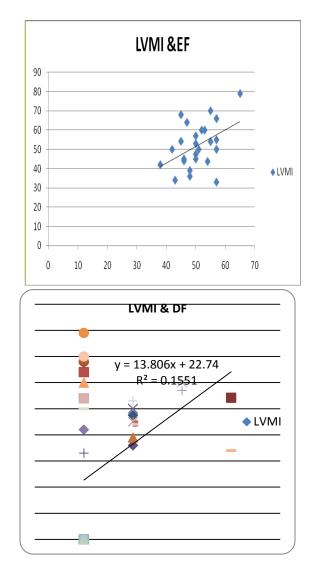


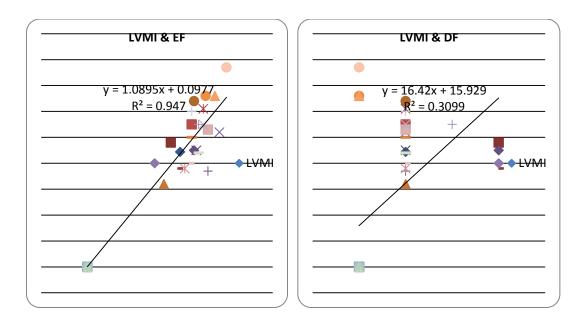
Fig.(10B): Correlation between 1st measured LVMI & EF% and diastolic function

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	р			
EF	0.65	< 0.05			
Diastolic function - 0.45 < 0.05					



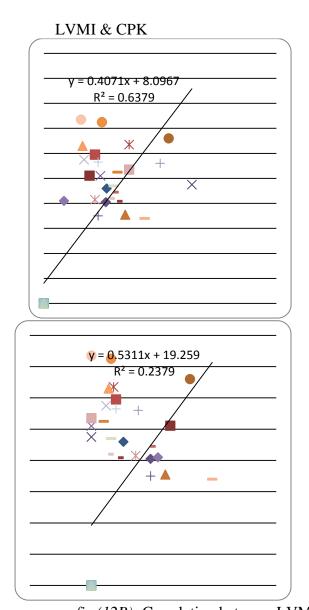
 $\it Fig.(11B)$: Correlation between 2nd measured LVMI & EF% and diastolic function

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



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 $1^{\rm st}$ measured left ventricular mass and CPK-MB but it was statistically insignificant (P>0.05).