Table (11) shows the comparison of personal data between the all studied groups. There was no significant difference between the all studied groups as regards age and weight but there were significant difference between all studied groups as regards height [GI< (G2,G3)] and surface area (01C2,03) and body mass index [(01=G2)< 03] and systolic blood pressure [(G1 2) >G 3] and

diastolic blood pressure [(01=02)>G3].

Table(12) shows sex distribution between studied groups where

GI 14 males (70%) and 6 females 30%)

G2 7 males (70%) and 3 females(30%)

G3 7 males (46.67 %)and 8 females (53.33%)

There was no statistical significant difference between all studied groups.

Table (13) shows the comparison of laboratory data among all studied groups, it shows significant difference between all studied groups as regards urea , creatinine , hemoglobin and PH .

- Urea [(01=02>G3]

- Creatinine [(01=02) >G3]

- Hb [(G1=02)< G3]

- Ph [(G1=G2) >03]

Table (14) shows the comparison between all studied groups as regards echo data. There was no statistical significant difference between all studied groups as regards FS% and Ao, LA dimension , and peak A wave velocity .

But there was a significant increase in:

Left ventricular Mass [G1=G2,G3 &02>G3],

Left ventricular Mass index [G1=G2 &G1,02 > 03],

E wave velocity [G1=G2, & 02=03 & 1>3],

E/A [G1=G2 & G1,G2 >G3] ,

Left vent. ejection time (LVEJT) [G1,G2 > G3 & G2> G3],

LVEDD [G1=G2,G3 and significant increase in LVESD 01=G 2, G3 and G2 >G3 , IVS in the G1 shows a significant increase than 02&G3, G2=G3, PWT shows G 1> G 2 & G 3 & G2 >G3 and Aorta shows G1=G2 but 01,02 > G3 .

Table (15) shows the causes of renal failure among the Gl& G2.

It was mainly caused by glomerulonephrtis (60%)& renal stone (25%) & congenital renal disease (10%) and nephrocalcenosis 5 %.

G2 : glomerulonephrtis 50 % .& renal stone 30%. And congenital renal disease 20%.

There was no statistical significant difference between 01&02 as regards the cause of renal disease .

Table (16)

Shows ECG as a screening test compared to echocardiography. It showed that the sensitivity of ECG for diagnosis LVH compared to echo was 40% while the specificity was 100% this means that the ECG was considered specific test but not sensitive for diagnosis of LVH.

Table 17 shows X-ray chest and heart as a screening test compared to echo . It showed that the sensitivity of X-ray compared to echo was 30% while specificity was 100% this means that the X- ray was considered specific test but not sensitive for diagnosis of LVH .

Table it shows the correlation between the personal data and echocardiographic parameters in G1 it shows significant correlation between:

1- Age and mass index, FS % , E, A, LVEDD, LVESD , IVS , Ao and LA.

2- Weight And mass index ,E,A,LVEDD ,LVESD,IVS,Ao root dimension and LA dimension .

3- SA and mass index, E, A, LVEDD, LVESD, IVS,Ao and LA dimension .

4- BMI and LV mass index , LVEJT.

5- Systolic blood pressure and LV mass index and LVEDD

6- Diastolic pressure and mass index E, A, LVEDD, LVESD, IVS, Ao and LA dimension .

7- Insignificant correlation between height and all echo data.

Table 19 shows correlation between the personal data and echo data among G2 . There was positive significant correlation between

1- Age and LVEDD, and negative with LVEJT.

2- Negative correlation between wt. And LVEJT.

3- There was positive significant correlation between Ht. and LVEDD and LVFESD and —ve with LVEJT.

4- There was positive significant correlation between SA and LVESD but —ve correlation with LVEJT.

5-There was positive significant correlation between systolic blood pressure and FS%, LVEDD and Aortic root dimension.

6-Insignificant correlation between EMI &diastolic blood. Pr and echo parameters.

Table (20) shows significant correlation between the duration of renal failure and LV mass, LV mass index .LVEDD, LVESD,JVS ,Aortic root and left atrial dimension in G2 .

Table (21) shows no significant correlation between duration of renal failure and echo parameters in G2

Table (22) demonstrates the correlation between the laboratory data (urea, creatinine ,hemoglobin and PH of the blood and echo data) among the group 1, there was a+ ve correlation between blood urea and serum creatinine and left ventricular mass also there was a positive correlation between the blood urea and LVESD and aortic root dimension

lartim shows the correlation between laboratory data and echo parameters among the group 2. There was a +ve correlation between the blood PH and IVS & PWT.

Table (24): shows a +ve correlation between FS and age in GI, And —ye correlation between FS to age, weight and Ht.

Fssmoi shows the distribution of sex among 01+02

Male 70%

Female 30%

Fi in ss2i shows the distribution of causes of renal disease among GI

60% post glomerulonephrtis.

25?/ multiple renal stone

10% congenital renal disease

5% nephrocalcenosis

FiinLci3j shows the distribution of causes of renal disease among G2:

50% post glomerulonephrtis.,

30% renal stone

20% congenital renal disease

_Fih ea4i shows the laboratory data levels among all studied groups .

&argil) shows the LV mass index in all studied groups

In 01 mean LV mass was 95.95

In G2 mean LV mass was 131.03

In G3 mean LV mass was 48.67

Figure (6): shows a +ve correlation between FS and creatinine level in 01 .

Figure (7): shows a +ve correlation between FS and creatinine level in G2

Figure (8): shows a -ye correlation between LVEJT and creatinine level in 01 .

Figure (9): shows a +ve correlation between LVEJT and creatinine level in G2 .

Table (12) : Sex distribution among studied groups .

Sex	Male		Female		Total	
	No.	%	No.	%	No.	%
Group 1	14	70%	6	30%	20	100%
Group 2	7	70%	3	30%	10	100%
Group 3	7	46.67%	8	53.33%	15	100%

Table (14) : Echo data among all studied groups .

Echo data	Groups	N	Mean	Std. deviation	F	P	Scheffe test
LV Mass	1	20	80.56	59.72	6.1700	<0.01	1=2,3
	2	10	113.06	53.63			2>3
	3	15	43 50	24.42			
LV Mass index	1	20	95.95	63.42	7.9000	■	■
	2	10	131.03	59.24			■
	3	15	48.67	21.21			
FS		■	35.65	5.86	1.10	>0.05	
	2		35.80	5.99			
	3		38.33	4.95			
E wave velocity	1	20	86	.19	3.81	<0.05	■
	2	10	.94	.17			■
	3	15	1.05	22			
A wave velocity	1	20	59	14	2.10	>0.05	
	2	10	.73	14			
	3	15	62	22			
EA	1	20	1.44	27	■	<0.01	■
	2	10	1.32	5.20			■
	3	15	I.70	30			
LV ejection Time	1	20	295.05	30.17	6.20	<0.01	1,2<3
	2	10	276.00	21.98			2<3
	3	15	308.66	1.87			
LVEDD	1	20	38.15	9.88	3.52	<0.05	1=2,3
	2	10	43.60	6.97			
	3	15	34.36	7.33			
LVESD	1	20	24.50	6.03	7.42	<0.01	1=2.3
	2	10	28.50	5.27			2>3
	3	15	19.68	5.53			
IVS	1	20	62.05	20.69	50.77	<0.001	■
	2	10	14.87	23.30			■
	3	15	5.46	1.12			
PWT	1	20	63.55	18.76	41.27	■	■
	2	10	22.27	30.98			■
	3	15	6.08	3.47			
Aortic root dimension	1	20	24.77	3.76	15.31	<0.001	■
	2	10	26.00	3.09			■
	3	15	16.80	6.66			
LA dimension	1	20	22.64	6.54	3.02	<0.05	
	2	10	25.65	3.93			
	3	15	20.06	5.02			

Table (18) : correlation between the personal data and echo data in GI

Variables	Age	Weight	Height	Surface area	Body mass area	Sys. Bl Pe	Dia Bl pe
LV mass	-.102	.202	.566	.291	**.334**	-.018	**-.304**
LV mass index	**.463***	.529*	.716*	.516*	.518*	-.473*	**-.045**
PS	.132	.165	A94*	.060	.064	-.108	**.193**
E wave velocity	308	.641**	.784**	.611*	.609*	-.122	**.142**
A wave velocity	.158	.516*	.812**	.727**	726**	-.094	**.092**
DA	-.222	.-040	-.152	-.254	-.261	.065	**-.159**
LV ejection time	-.015	.033	-.055	.310	.274	.545*	**.206**
LVEDD	**.467***	.597**	428**	.660**	.678**	-.288	**-.090**
LVESD	.340	.588**	.855**	.678**	.709**	-.088	**-.120**
IVS	.340	.588**	.855**	.678**	.704**	-.088	**-.120**
PWT	.203	.231	.245	.360	.353	-.048	**.281**
Aortic root dimension	.145	.567[4]*	.856**	.702**	.708**	-.038	**-.108**
LA dimension	.160	.540*	.839**	.753**	.778**-	.014	**-.125**

*= significant < 0 05%   ** = significant < 0.01 % .

Table (20): Correlation between duration of illness and echo data among group 1 .

Variables	Duration of illness
LV Mass	0.540*
LV Mass index	0.477*
FS	0.082
E wave velocity	0.268
A wave velocity	0.384
E/A	0.06
LV ejection time	0.07
LVEDD	0.594**
LVESD	0.605**
IVS	0.463*
PWT	0.115
Aortic root dimension	0.663**
LA dimension	0.515*

* = significant < 0.05%   ** = significant < 0.01%

Table (21): Correlation between duration of illness and echo data among group 2 .

Variables	Duration of illness
LV Mass	0.583
LV Mass index	0.493
FS	0.487
E wave velocity	0.055
A wave velocity	0.221
E/A	0.56
LV EJECT.T	0.322
LVEDD	0.527
LVESD	0.509
IVS	0.495
PWT	0.251
Aortic root dimension	0.122
LA dimension	0.270

* = significant < 0.05%   ** = significant < 0.01%

Table (22) : Correlation between Laboratory data and echo data among group1 .

Variables	Urea	Creatinine	Hemoglobin	PT
LV mass	0.723*	0.665**	-0.095	0.134
LV mass Index	0.283	0.176	-0.187	0.067
FS	0.285	0.187	0.126	0.196
E Wave velocity	0.767	0.193	-0.146	0.144
A Wave velocity	0.189	0.186	-0.256	0.171
E/A	0.001	-0.078	-0.049	-0.402
LV ejection time	-0.214	-0.177	-0.041	0.088
IVEDD	0.358	0.235	-0.224	0.197
LVESD	0.526*	0.326	-0.139	0.273
IVS	0.350	0.251	-0.222	0.085
PWT	-0.140	0.031	-0.260	0.079
Aortic root dimension	0.503*	0.386	-0.102	0.107
LA dimension	0.315	0.257	0.124	0.287

*= significant < 0.05%   ** = significant < 0.01%

Table (23) : Correlation between Laboratory data and echo data among group2 .

Variables	Urea	Creatinine	Hemoglobin	PH
LV mass	-0.852	-0.011	-0.552	0.214
LV mass index	-0.686	-0.032	-0.499	0 133
FS	0.200	0.126	-0.628	0.314
E wave velocity	0.212	0.274	-0.179	-0.065
A wave velocity	-0.574	0.188	-0.065	0,034
E/A	-0.268	-0.001	0.437	-0.304
LV ejection time	0.848	0.033	0.284	-0.049
LVEDD	0.208	-0.108	-0.524	0.067
LVESD	-0.746	0.255	-0.582	0.326
IVS	-0.713	-0.416	0.136	0.799**
PWT	-0.602	0.168	-0.200	0.890"
Aortic root dimension	0.430	0.147	-0.289	-0.045
LA dimension	0.304	-0.101	-0.401	0.014

*= significant < 0.05%   ** = significant <0.01%

Table (24) : Correlation between (ejection time and FS)
and (age ,weight and height of G1 and G2 .

Variables	Group 1		Group 2	
	Ejection	FS	Ejection time	FS
Age	0.05	0.494*	0.316	-0.692*
Weight	0.31	0.06	0.127	-0.729*
Height	-0.193	0.206	0.492	0.709*

* significant < 0.02

Fig. ' sex Distribution
among groupl and group2.

female

30.0%

male

70.0%

Fig. 3 : Distribution of causes of renal failure
among group 2.

congenital Wdney di
20.0%

poa streptococal gl
50.0%

multiple renal stone
30.0%
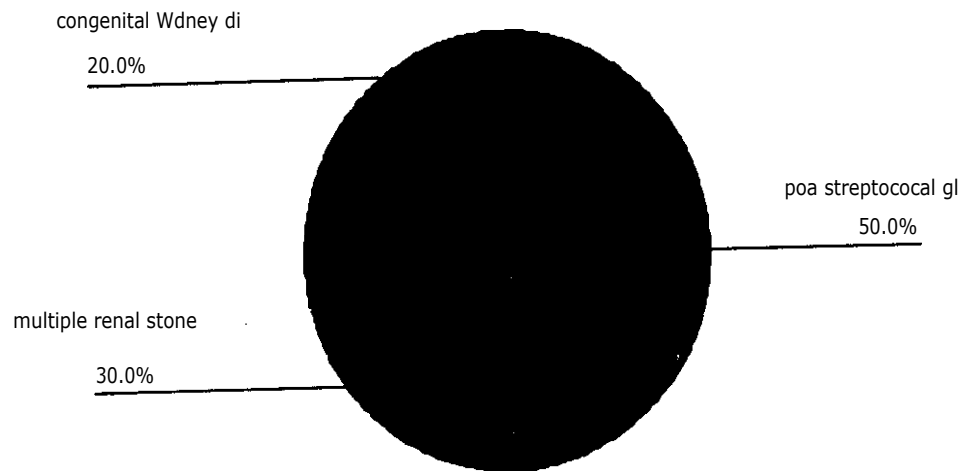
Fig (4) Laboratory data levels amoung all studied

Legend:
- ■ Hb%
- ■ Urea
- □ Creatinine

Y-axis: Mean laboratory data levels (150, 100, 50, 0)

X-axis: Groups (G1, G2, G3)

It!
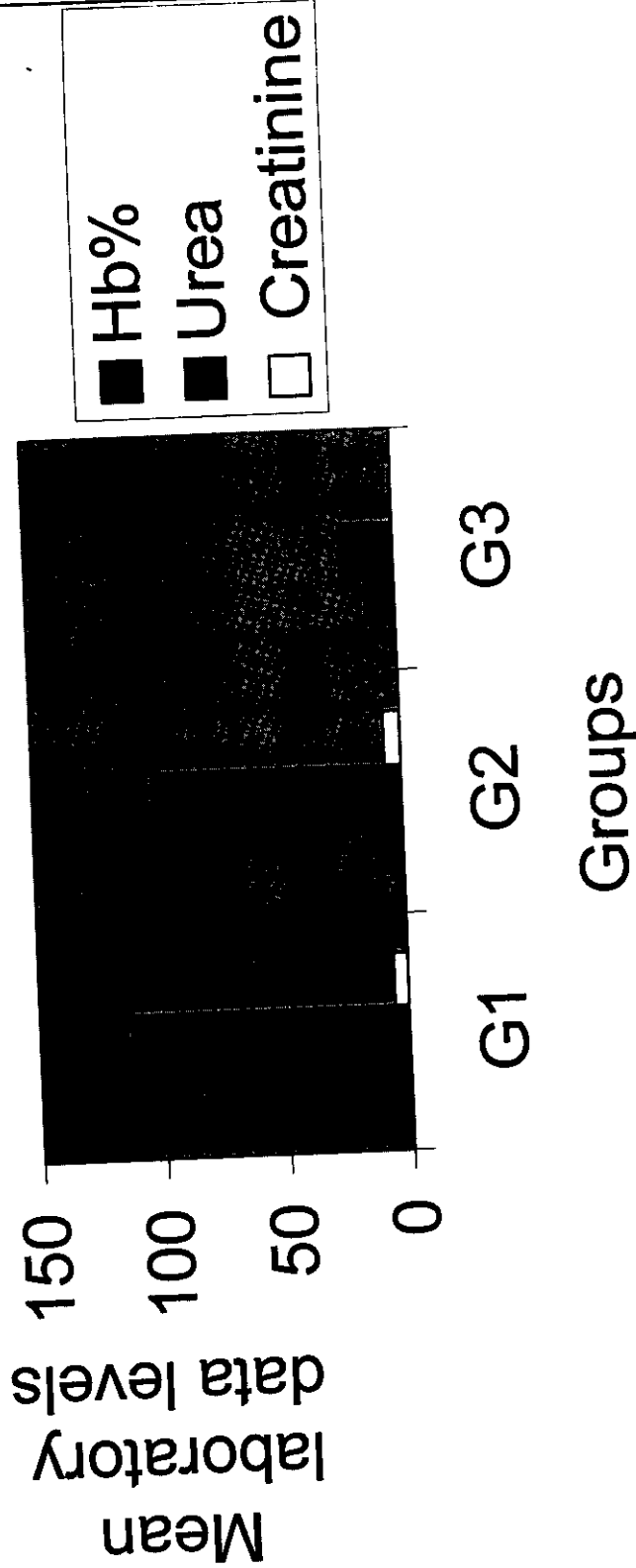
Fig. 5 Mass index among all studied groups
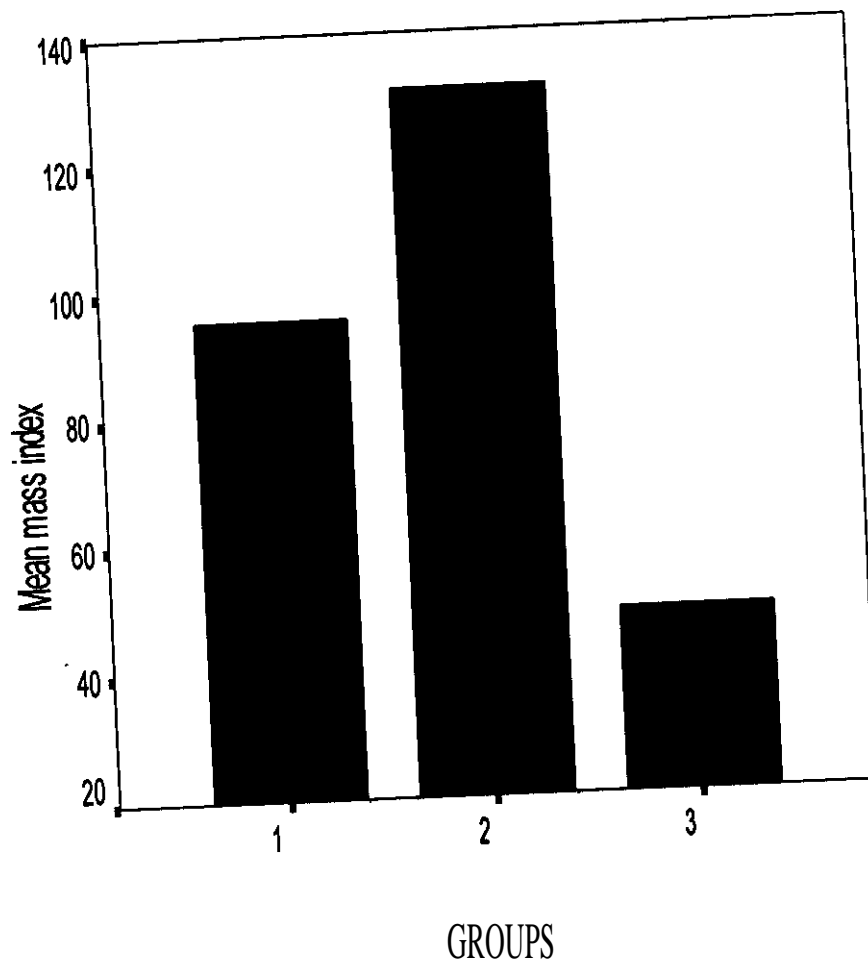
Fig 6 : Correlation between FS and creatinine level among group 1 .
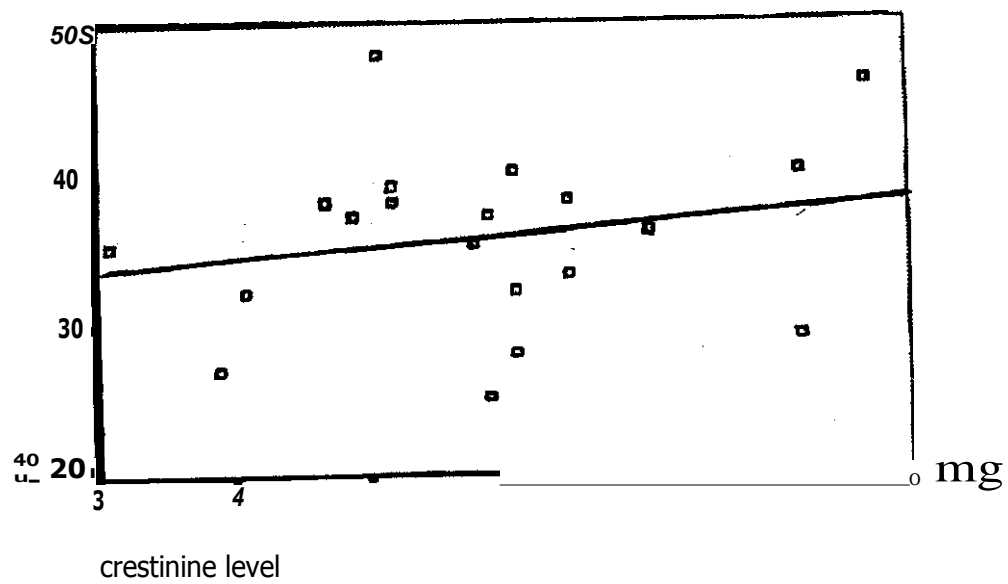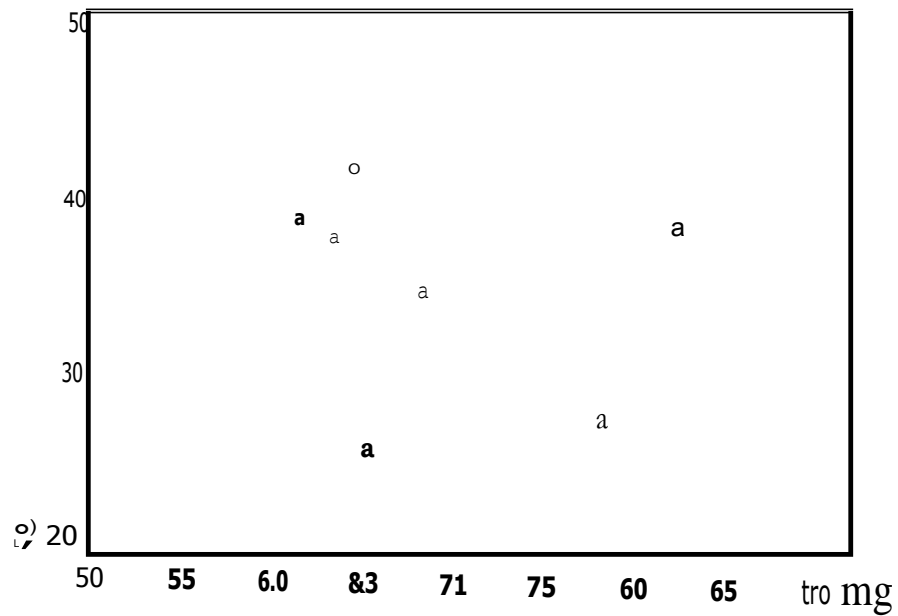

crestinine level

Fig. 7 : Correlation between FS and creatinine level among groups 2.

Creatinine level

Fig. 8: Correlation between LV ejection time and creatinine level among groups 1.

Creatinine level