

RESULTS

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The results of the present study were statistically analysed and presented as follows:

I- Laboratory results in cases and control groups:

Total homocysteine (EIA): Table (4), Fig. (5):

In control group, total homocysteine level ranged between 2.6-15 $\mu\text{mol/L}$ with a mean $\pm$ SEM of 8.2 ± 0.95 $\mu\text{mol/L}$. In cases group, it ranged between 2.6-144 $\mu\text{mol/L}$ with a mean $\pm$ SEM of 29.38 ± 5.7 $\mu\text{mol/L}$. The difference was highly statistically significant ($P < 0.001$).

Plasma folic acid (RIA): Table (5), Fig. (6):

In control group, plasma folic acid level ranged between 1.7-14 ng/ml with a mean $\pm$ SEM of 6.25 ± 1.1 ng/ml . In cases group, it ranged between 2.1-16 ng/ml with a mean $\pm$ SEM of 4.43 ± 0.46 ng/ml . The difference was non-significant ($P > 0.05$).

Fasting blood glucose: Table (6), Fig. (7):

In control group, FBG level ranged between 80-115 mg/dl with a mean $\pm$ SEM of 94.33 ± 2.7 mg/dl . In cases group, it ranged between 77-123 mg/dl with a mean $\pm$ SEM of 97.44 ± 2.2 mg/dl . The difference was non significant ($P > 0.05$).

Creatinine: Table (7), Fig. (8):

In control group, creatinine level ranged between 0.6-1.2 mg/dl a mean $\pm$ SEM of 0.85 ± 0.05 mg/dl . In cases group, it ranged between 0.4-1.2 mg/dl with a mean $\pm$ SEM of 0.89 ± 0.04 mg/dl . The difference was non significant ($P > 0.05$).

Triglycerides: Table (8), Fig. (9):

In control group, triglycerides level ranged between 29-155 mg/dl with a mean $\pm$ SEM 79.13 ± 10.5 mg/dl. In cases group, it ranged between 21-226 mg/dl with a mean $\pm$ SEM of 119.4 ± 10.7 mg/dl. The difference was significant ($P < 0.05$).

Total cholesterol: Table (9), Fig. (10):

In control group, total cholesterol level ranged between 79-185 mg/dl with a mean $\pm$ SEM of 134.2 ± 8.9 mg/dl. In cases group, it ranged between 88-205 mg/dl with a mean $\pm$ SEM of 149.8 ± 5.5 mg/dl. The difference was non significant ($P > 0.05$).

HDL-c: Table (10), Fig. (11):

In control group, HDL-c level ranged between 30-90 mg/dl with a mean $\pm$ SEM of 52.6 ± 4.7 mg/dl. In cases group, it ranged between 32-95 mg/dl with a mean $\pm$ SEM of 50.71 ± 2.7 mg/dl. The difference was non-significant ($P > 0.05$).

LDL-c: Table (11), Fig. (12):

In control group, LDL-c level ranged between 23.8-121 mg/d with a mean $\pm$ SEM of 64.73 ± 8.6 mg/dl. In cases group, it ranged between 15-119.8 mg/dl with a mean $\pm$ SEM of 76.91 ± 5 mg/dl. The difference was non significant ($P > 0.05$).

II- Laboratory results in patients group having less than 2 affected coronary arteries (Group A) and in patients group having 2 or more affected coronary arteries (Group B):

Total homocysteine (EIA): Table (12), Fig. (13):

In group A, total homocystein level ranged between 1.6-45 $\mu\text{mol/L}$ with a mean $\pm$ SEM of $22.46 \pm 7.1 \mu\text{mol/L}$. In group B, total homocystein level ranged between 5-144 $\mu\text{mol/L}$ with a mean $\pm$ SEM of $38.61 \pm 9.1 \mu\text{mol/L}$. The difference was non-significant ($P > 0.05$).

Plasma folic acid (RIA): Table (13), Fig. (14):

In group A, plasma folic acid level ranged between 2.1-16.6 ng/ml with a mean $\pm$ SEM of $4.69 \pm 0.7 \text{ ng/ml}$. In group B, it ranged between 2.4-6.8 ng/ml with a mean $\pm$ SEM of $4.15 \pm 0.4 \text{ ng/ml}$. The difference was non significant ($P > 0.05$).

III- The correlation studies between homocysteine and other variables showed:

- Non-significant negative correlation between homocysteine and folic acid, $r = -0.2611$, $P > 0.05$.
- Non-significant correlation between homocysteine and FBG, $r = 0.1526$, $P > 0.05$.
- Non-significant correlation between homocysteine and creatinine, $r = 0.177$, $P > 0.05$.
- Non-significant correlation between homocysteine and total cholesterol, $r = 0.2355$, $P > 0.05$.
- Non-significant correlation between homocysteine and TRG, $r = 0.1157$, $P > 0.05$.

- Non-significant correlation between homocysteine and HDL-C, $r=0.197$, $P > 0.05$.
- Non-significant correlation between homocysteine and LDL-C, $r=0.1504$, $P > 0.05$.

Table (4): Total plasma homocysteine level (umol/L) in cases and control group.

	Cases (n=35)	Control (n = 15)
Range	2.6-144	2.6-15
Mean	29.38	8.2
SEM	± 5.7	± 0.95
t	3.658	
P	< 0.001	

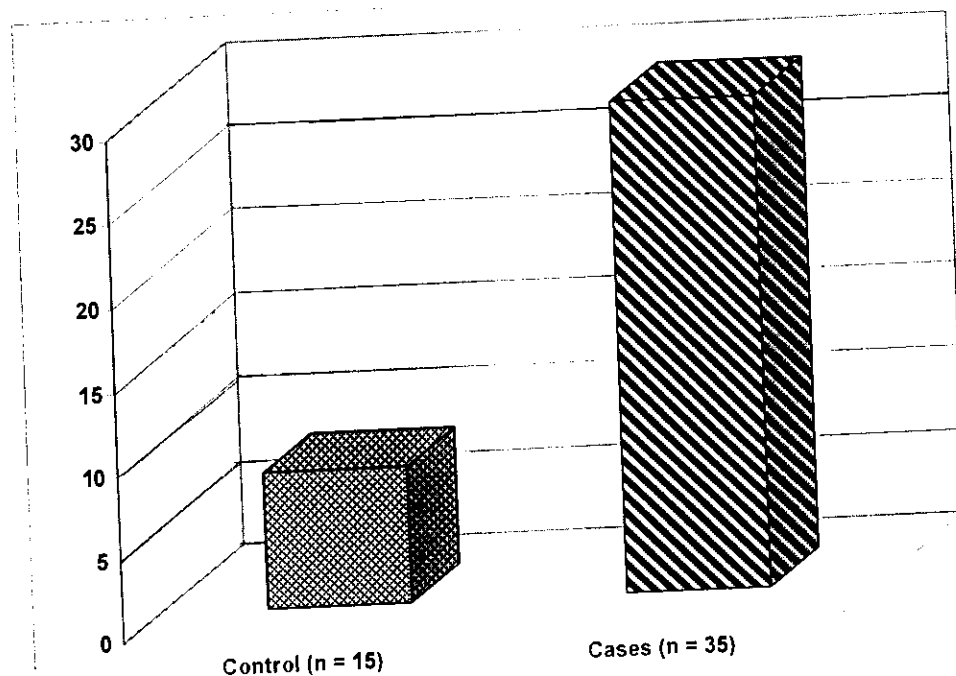


Fig. (5): Mean levels of total plasma homocysteine (umol/L) in cases and control group.

Table (5): Plasma folic acid (ng/ml) in cases and control group.

	Cases (n=35)	Control (n = 15)
Range	2.1 – 16	1.7 – 14
Mean	4.43	6.25
SEM	± 0.46	± 1.1
t	1.520	
P	> 0.05	

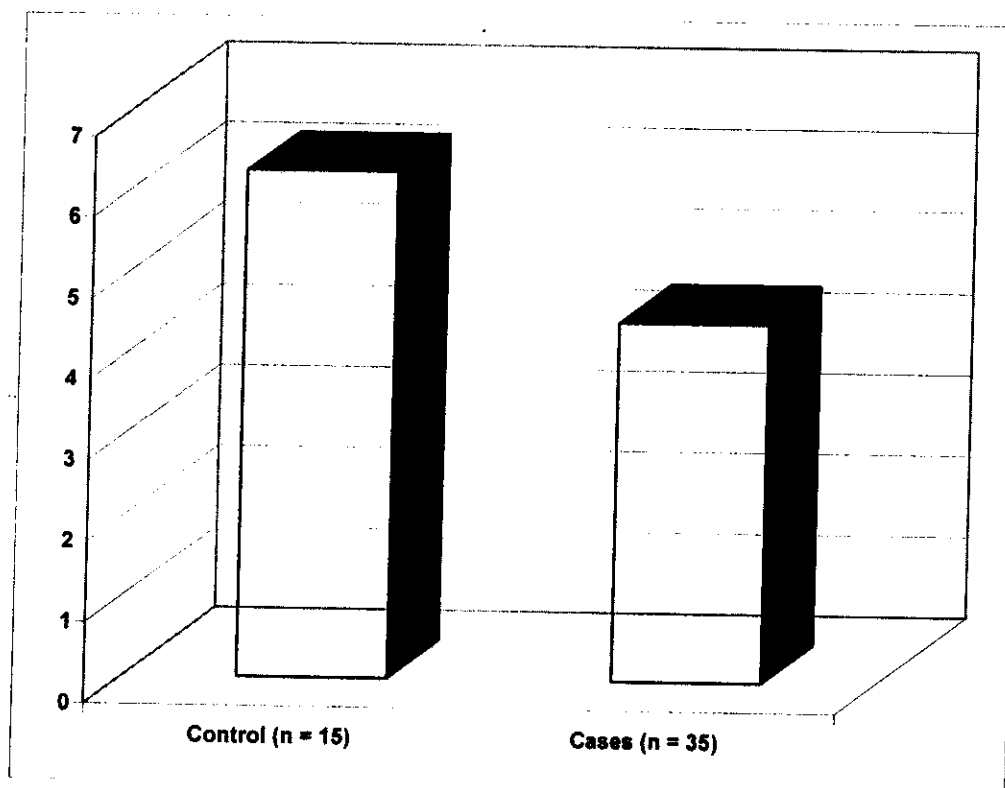
**Fig. (6):** Mean levels of plasma folic acids (ng/ml) in cases and control groups.

Table (6): Serum fasting blood glucose levels (mg/dl) in cases and control group.

	Cases (n=35)	Control (n = 15)
Range	77-123	80-115
Mean	97.74	94.33
SEM	± 2.2	± 2.7
t	0.897	
P	> 0.05	

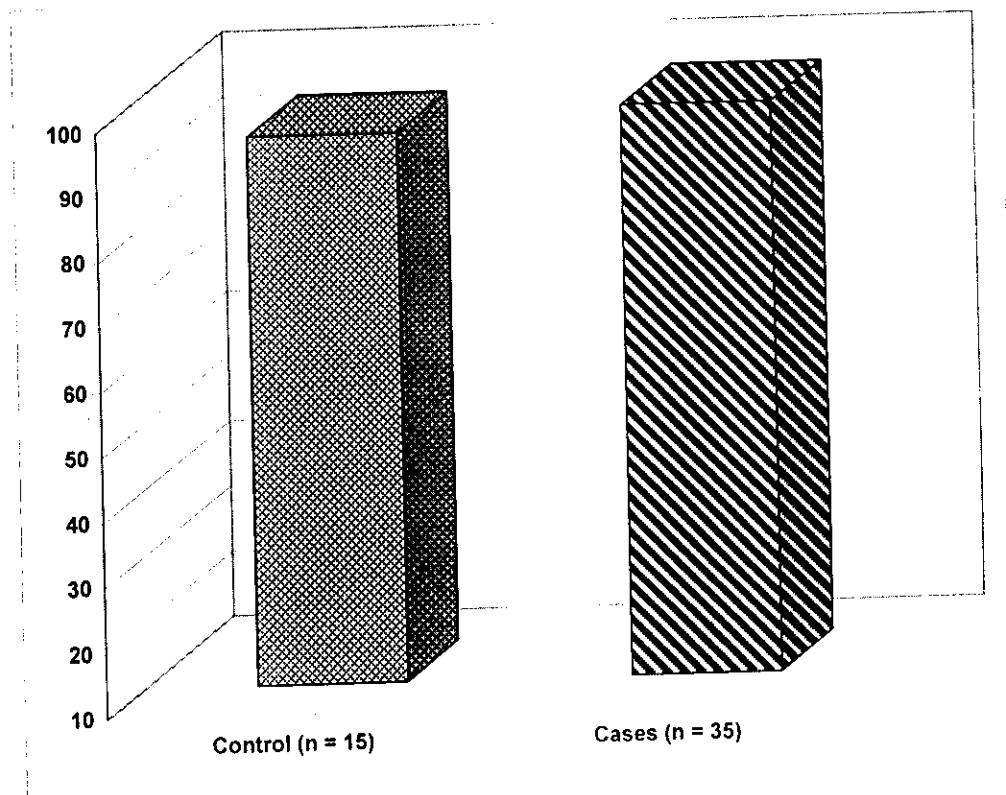


Fig. (7): Mean levels of serum fasting blood glucose (mg/dl) in cases and control group.

Table (7): Serum creatinine levels (mg/dl) in cases and control group.

	Cases (n=35)	Control (n = 15)
Range	0.4-1.2	0.6-1.2
Mean	0.89	0.85
SEM	± 0.04	± 0.05
t	0.614	
P	> 0.05	

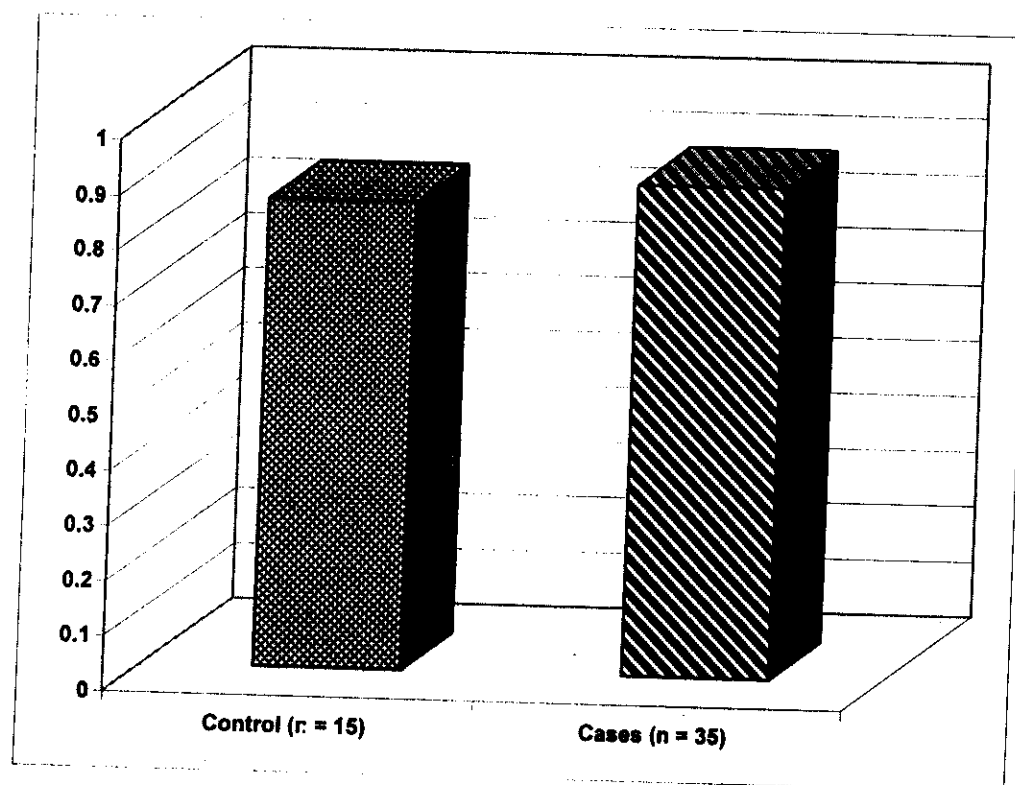
**Fig. (8):** Mean levels of serum creatinine (mg/dl) in cases and control group.

Table (8): Serum triglycerides levels (mg/dl) in cases and control group.

	Cases (n=35)	Control (n = 15)
Range	21-226	29-155
Mean	119.4	79.13
SEM	± 10.7	± 10.5
t	2.690	
P	< 0.05	

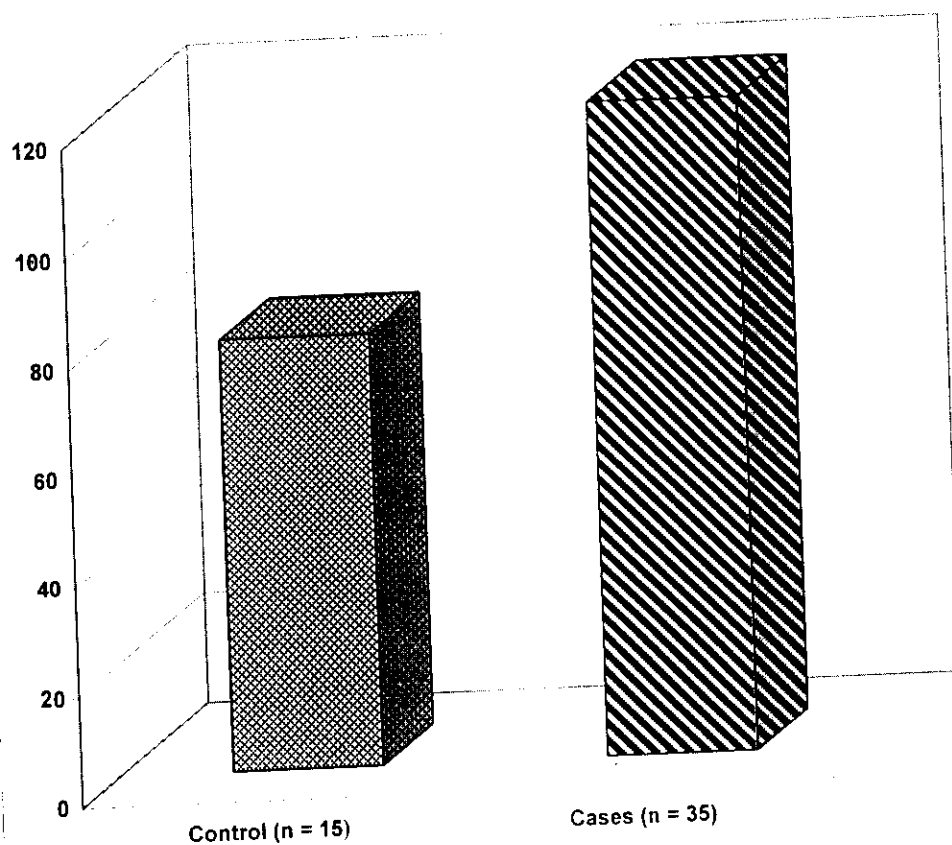


Fig. (9): Mean levels of serum TGS (mg/dl) in cases and control group.

Table (9): Serum total cholesterol level (mg/dl) in cases and control group.

	Cases (n=35)	Control (n = 15)
Range	88-205	79-185
Mean	149.86	134.27
SEM	± 5.5	± 8.9
t	1.529	
P	> 0.05	

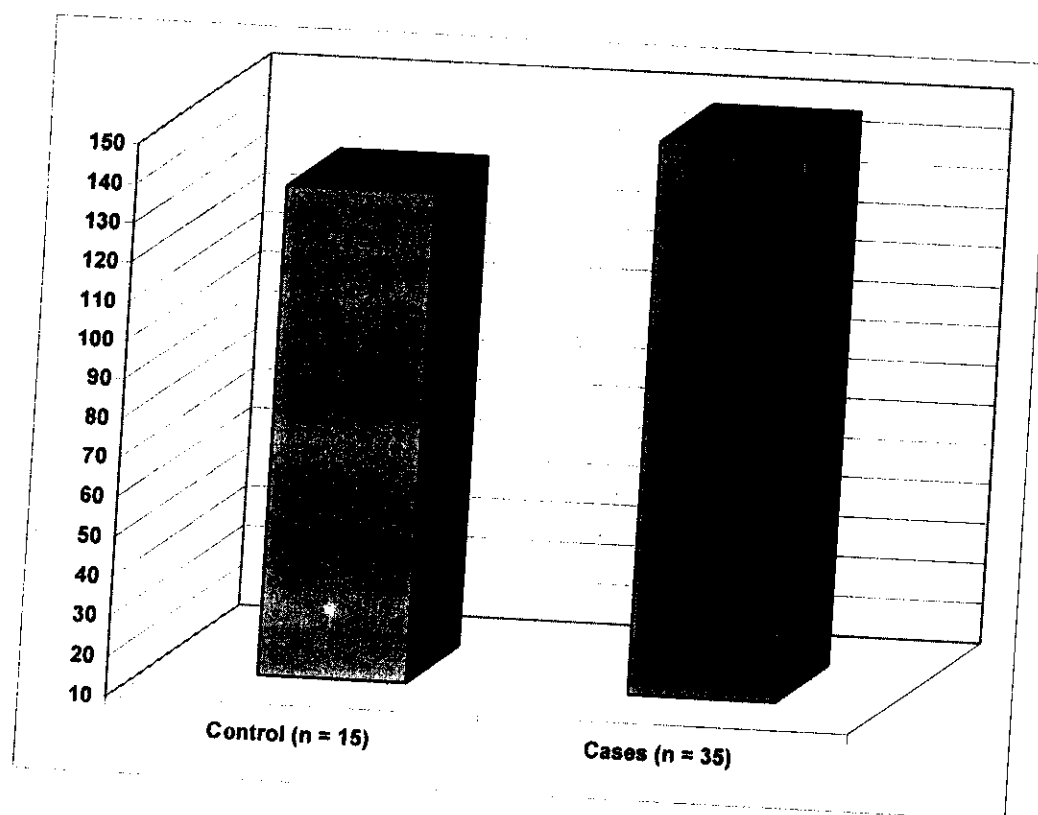


Fig. (10): Mean levels of serum total cholesterol (mg/dl) in cases and control group.

Table (10): Serum HDL-Clevel (mg/dl) in cases and control group.

	Cases (n=35)	Control (n = 15)
Range	32-95	30-90
Mean	50.71	52.6
SEM	± 2.7	± 4.7
t	0.364	
P	> 0.05	

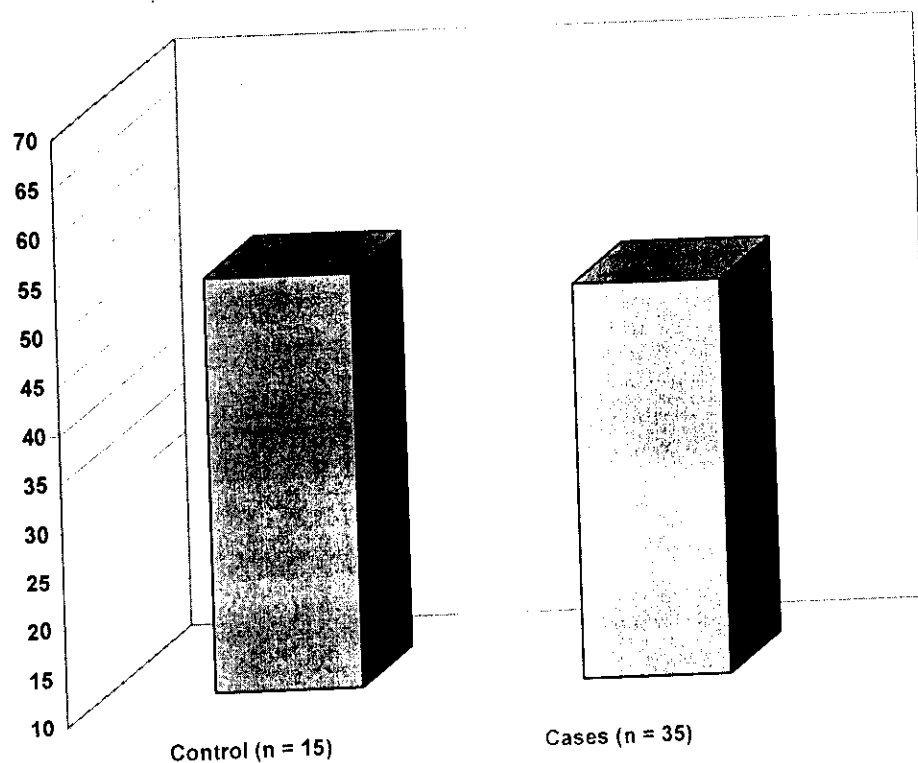


Fig. (11): Mean levels of serum HDL-C (mg/dl) in cases and control group.

Table (11): Serum LDL-C level (mg/dl) in cases and control group.

	Cases (n=35)	Control (n = 15)
Range	15-119.8	23.8-121
Mean	76.91	64.73
SEM	± 5	± 8.6
t	1.275	
P	> 0.05	

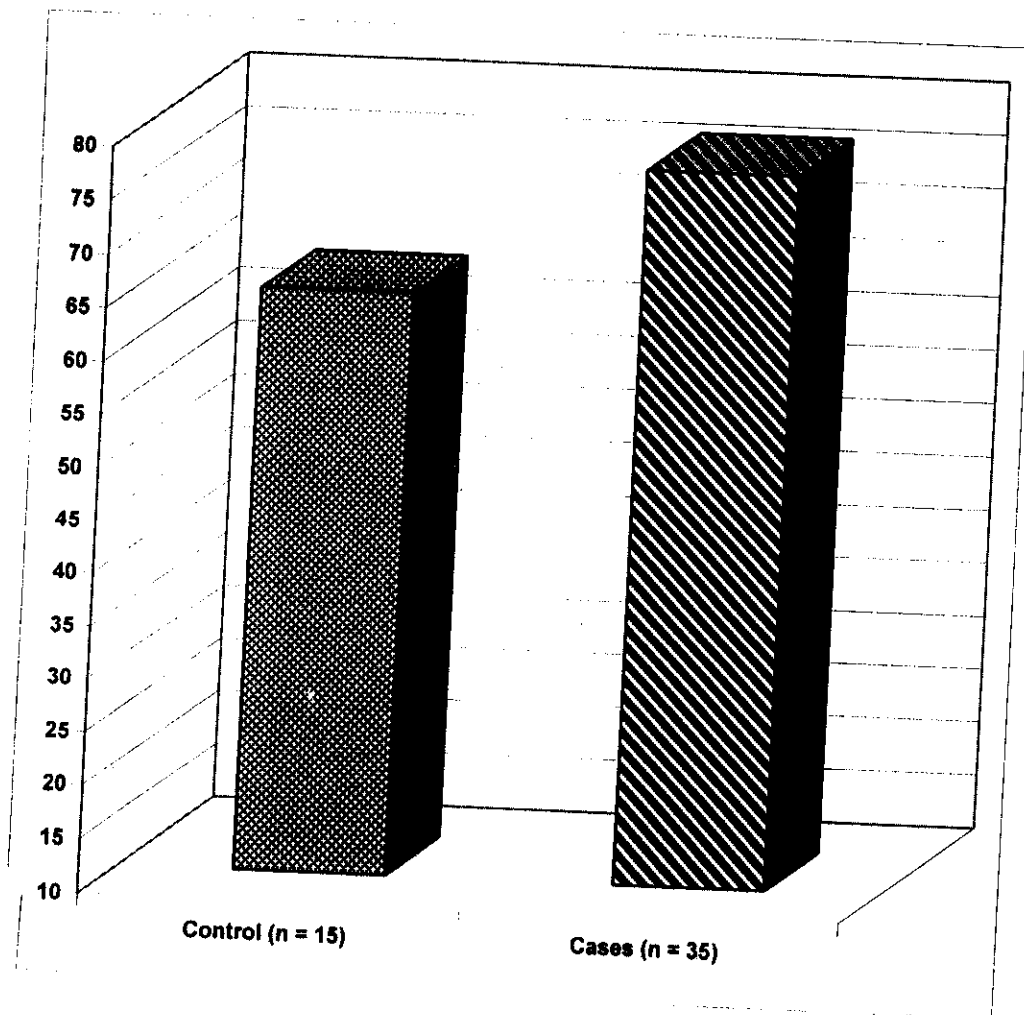
**Fig. (12):** Mean levels of LDL-C (mg/dl) in cases and control group.

Table (12): Plasma total homocysteine level (umol/L) in patients group having less than 2 affected coronary arteries (Group A) and patients having 2 or more affected coronary arteries (Group B).

	*Group A (n = 20)	* Group B (n=15)
Range	1.6-45	5-144
Mean	22.46	38.61
SEM	± 7.1	± 9.1
t	1.398	
P	> 0.05	

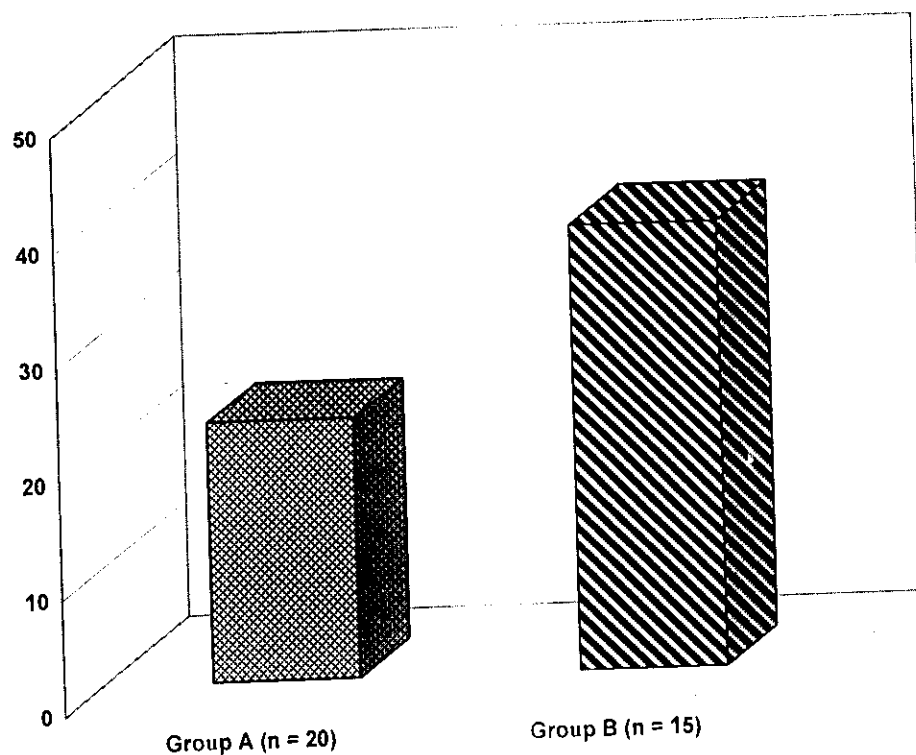


Fig. (13): Mean levels of total plasma homocysteine (umol/L) in group A and group B

Table (13): Plasma folic acid level (ng/ml) in patients group having less than 2 affected coronary arteries (Group A) and patients group having 2 or more affected coronary arteries (Group B).

	*Group A (n = 20)	* Group B (n=15)
Range	2.1-16.6	2.4-6.8
Mean	4.69	4.15
SEM	± 0.7	± 0.4
t	0.628	
P	> 0.05	

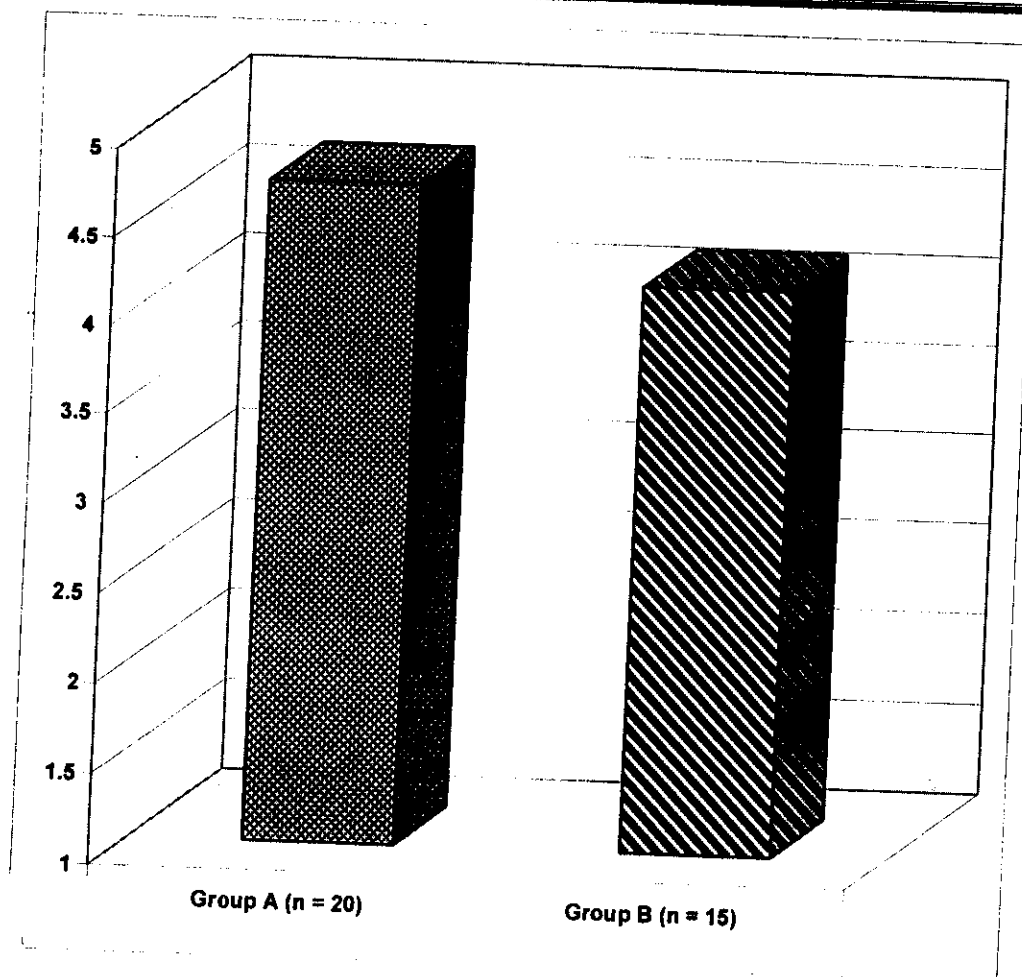


Fig. (14): Mean levels of plasma folic acid (ng/ml) in group A and group B.

Table (14): Correlation between t Hey level and other laboratory data.

	Homocystein (r)	*P value
Folic acid	- 0.2611	> 0.05
FBG	0.15266	> 0.05
Creatinine	0.11718	> 0.05
Chol.	0.23554	> 0.05
TRG	0.11574	> 0.05
HDL-C	0.13972	> 0.05
LDL-C	0.15045	> 0.05

* All are non significant

Table (15): Master sheet of cases group

No.	Age/ y	Sex	No. of affected coronary arteries	f Hcy umol/L	Plasma folic acid ng/ml	FBG mg/dl	Creatinine mg/dl	Cholesterol mg/dl	T.Gs mg/dl	HDL-c mg/dl	LDL-c mg/dl
1	55	M	1	13.2	3.3	110	1	119	76	38	56.8
2	47	M	1	2.6	4.2	94	1.2	193	226	40	107.8
3	50	M	1	45.2	3.3	92	1	180	180	49	95
4	66	M	4	56	3.3	85	1	205	189	55	118.2
5	48	F	1	15.4	3.8	115	0.7	144	63	70	61.4
6	73	M	3	144	2.4	91	1	167	33	46	105.6
7	48	M	1	136	3.4	123	0.9	184	175	40	109
8	49	F	1	8	3.9	101	1.2	151	181	38	76.8
9	68	M	3	18.4	6	102	0.6	196	117	60	112.6
10	45	M	1	20	2.6	98	1.2	88	75	43	30
11	60	M	2	9.4	6.6	87	1	168	119	39	105
12	50	M	1	26.2	2.6	85	0.8	113	88	32	63.4
13	56	M	3	12.4	3.3	77	0.7	156	62	40	103.6
14	45	M	1	6.2	2.9	109	0.7	125	32	37	81.6
15	35	M	3	53.4	2.6	100	1.1	172	202	95	36.6
16	55	M	1	16	5.6	117	0.7	105	90	35	52
17	47	M	1	8.6	3.2	120	0.6	119	161	53	33.8
18	50	M	1	5.2	2.3	78	0.4	106	21	25	76.8
19	53	M	0	7.6	3.1	84	0.5	191	196	70	81.8
20	58	M	3	5	6.8	84	0.8	109	180	58	15
21	48	M	3	73	2.8	103	1	145	206	63	40.8
22	43	M	3	53	4.9	99	0.9	180	81	44	119.8
23	40	M	3	34.6	3.3	91	1	140	129	60	54.2
24	44	M	2	26	3.1	97	0.8	163	97	70	73.6
25	55	F	0	77	2.1	104	0.6	127	42	55	63.6
26	60	M	2	12.8	3.7	85	0.7	120	30	38	76
27	57	M	4	20.8	8	90	1.2	180	50	60	110
28	40	F	1	9.4	7.3	115	1	192	190	40	114
29	50	M	0	16.2	16.6	80	1	145	75	70	60
30	57	M	1	11.4	8.8	120	0.8	163	62	38	112.6
31	65	M	1	11.6	4.1	95	1.1	127	175	43	49
32	43	M	1	6.4	6.5	85	0.7	120	32	40	73.6
33	70	F	3	36.4	4.6	105	1.3	105	202	95	30.4
34	67	M	1	7	4.1	110	1.2	180	117	46	110.6
35	62	M	4	24	3.3	90	1	167	181	50	80.8

Table (16): Master sheet of control group.

No.	Age/y	Sex	t Hey umol/L	Plasma folic acid ng/ml	FBG mg/dl	Creatinine mg/dl	Cholesterol mg/dl	T.Gs mg/dl	LDL-c mg/dl	HDL-c mg/dl
1	49	M	9.8	8.3	94	1	154	148	65	59.4
2	47	F	15	8.2	80	1.2	149	63	90	31
3	47	F	4	9.8	110	0.6	182	50	51	121
4	58	M	13.4	12.4	90	1.1	185	127	40	119
5	48	M	5.6	14.9	105	0.8	110	130	38	46
6	39	M	2.6	11.3	115	0.8	180	155	60	89
7	27	M	6.2	3.5	106	0.7	122	46	30	82.8
8	61	M	3.6	2.8	85	0.8	134	51	46	77.8
9	29	M	10.8	3.2	109	0.9	104	77	51	37.6
10	41	M	8	2.3	85	0.6	153	82	60	76.6
11	62	M	7	3.1	94	0.8	99	29	49	44.2
12	29	F	6.6	1.7	87	0.6	148	65	33	102
13	58	M	12	1.8	89	1	79	50	40	29
14	65	M	11	4.3	90	0.9	135	63	90	32.4
15	60	M	7.5	6.1	87	1	80	51	46	23.8