

Results

The results of the present study are summarized , statistically analyzed and presented in 25 tables and 17 figures .

Table (1): Age (years), sex and blood pressure (mmHg) of the diabetic patients without microalbuminuria (Group I).

No.	Age (years)	Sex (M/F)	SBP (mmHg)	DBP (mmHg)
1	38	M	160	110
2	45	M	110	80
3	55	F	130	90
4	60	F	110	70
5	50	F	120	80
6	39	F	110	80
7	60	M	140	100
8	48	M	150	100
9	37	F	120	80
10	65	F	130	90
11	45	M	160	120
12	50	F	120	80
13	40	M	120	80
14	45	F	110	80
15	35	M	110	70
Min.	35		110	70
Maxi.	65		160	120
Mean	47.47		126.67	87.33
S.D.	± 9.23		±17.99	±14.38

SBP : Systolic blood pressure
 DBP : Diastolic blood pressure
 S.D. : Standard deviation
 MIN : Minimum
 Max : maximum

Table (2): Age (years), sex and blood pressure (mmHg) of the diabetic patients with microalbuminuria (Group II).

No.	Age (years)	Sex (M/F)	SBP (mmHg)	DBP (mmHg)
1	50	F	110	70
2	55	M	150	100
3	40	M	160	105
4	42	F	110	70
5	58	F	130	90
6	38	M	120	80
7	48	M	130	90
8	50	F	160	110
9	43	F	120	80
10	55	F	110	70
11	46	M	170	110
12	40	M	130	85
13	61	F	120	80
14	50	M	150	100
15	37	M	140	100
Min.	37		110	70
Max.	61		170	110
Mean	47.53		134.00	89.33
S.D.	±7.51		±19.93	±14.25

Table (3): Age (years), sex and blood pressure (mmHg) of the diabetic patients with frank proteinurea (Group III).

No.	Age (years)	Sex (M/F)	SBP (mmHg)	DBP (mmHg)
1	4	M	120	80
2	50	F	110	70
3	48	F	130	85
4	55	F	150	100
5	60	F	120	71
6	40	F	140	80
7	45	F	130	90
8	56	F	130	100
9	42	M	140	90
10	48	F	160	110
11	58	M	120	100
12	50	F	140	90
13	38	M	110	80
14	45	M	130	90
15	59	M	160	105
Min.	4		110	70
Max.	60		160	110
Mean	46.53		132.67	89.40
S.D.	±13.65		±15.80	±11.97

Table (4): Age (years), sex and blood pressure (mmHg) of control group (Group IV).

No.	Age (years)	Sex (M/F)	SBP (mmHg)	DBP (mmHg)
1	35	M	140	100
2	37	F	110	70
3	40	F	120	80
4	52	F	100	60
5	55	M	110	70
6	43	M	100	70
7	60	F	120	80
8	45	M	90	70
9	38	M	120	80
10	53	F	100	60
Min.	35		90	60
Max.	60		140	100
Mean	45.8		111.00	74.00
S.D.	± 8.65		± 14.49	± 11.74

Table (5): Statistical analysis of age, sex, systolic and diastolic blood pressure in the studied groups.

	Group I “n=15”	Group II “n=15”	Group III “n=15”	Group IV “n=10”
Age				
Mean $\pm$ SD	47.47 $\pm$ 9.23	47.53 $\pm$ 7.51	46.53 $\pm$ 13.65	42.5 $\pm$ 13.77
t	1.0	0.98	0.84	
p	>0.05 N.S.	>0.05 N.S.	>0.05 N.S.	
Sex				
Male	7	8	6	5
Female	8	7	9	5
X²	0.85	1.033	0.74	
p	>0.05 N.S.	>0.05 N.S.	>0.05 N.S.	
SBP				
Mean $\pm$ SD	126.67 $\pm$ 17.99	134.0 $\pm$ 19.93	132.67 $\pm$ 15.8	111.0 $\pm$ 14.49
t	2.25	3.98	3.33	
p	<0.05*	<0.01*	<0.01*	
DBP				
Mean $\pm$ SD	87.33 $\pm$ 14.38	89.33 $\pm$ 14.25	89.4 $\pm$ 11.97	74.0 $\pm$ 11.74
p	<0.05*	<0.05*	<0.05*	

N.S. = Non significant

- Significant difference from control at level 0.05
- This table shows that there is statistically non significant differences between each of the three patients groups and the control group regarding the age and the sex
- It shows also that there is statistically significant differences between each of the three patients groups and the control group regarding the systolic and the diastolic blood pressure .

Table (6): Comparison between the three studied groups regarding duration of diabetes (years).

No.	Duration of diabetes (years)		
	Group I	Group II	Group III
1	3	10	15
2	8	12	12
3	10	8	13
4	12	7	15
5	9	15	20
6	3	6	9
7	12	10	10
8	8	8	16
9	4	6	10
10	12	10	9
11	6	12	18
12	9	8	20
13	4	20	8
14	8	10	7
15	3	6	15
Min	3	6	7
Max	12	20	20
Mean	7.40	9.87	13.13
S.D.	±3.38	±3.80	±4.27
t1		3.26	4.11
p1		<0.001*	<0.001*
t2			2.85
p2			< 0.01*

p1 comparison between group I and each of group II and III

p2 Comparison between group II, III .

This table shows that there is statistically significant difference between group I and group II and between group I and group III as regards the duration of diabetes .

It shows also that there is statistically significant difference between group II and group III as regards the duration of diabetes .

Table (7): Fasting blood sugar (FBS) (mg/dl), two hours post prandial blood sugar (2 hPPBS) (mg/dl) and glycosylated hemoglobin % (HbA1c) of the diabetic patients without microalbuminuria (Group I).

No.	FBS (mg/dl)	2 hr. PPBS(mg/dl)	HBA1c (%)
1	195	320	9.1
2	210	320	9.4
3	209	300	8.9
4	194	293	8.5
5	120	130	7.8
6	160	180	8.1
7	285	400	8.6
8	160	180	7.7
9	194	210	7.3
10	247	320	8.9
11	170	200	8.3
12	210	320	8.5
13	130	170	7.2
14	210	320	8.9
15	183	197	8.3
Min.	120	130	7.2
Max.	285	400	9.4
Mean	191.80	257.33	8.37
S.D.	± 41.91	± 79.31	± 0.65

Table (8): Fasting blood sugar (mg/dl), two hours post prandial blood sugar (2 hr PPBS) (mg/dl) and glycosylated haemoglobin % (HbA1c) of the diabetic patients with microalbuminuria (Group II).

No.	FBS (mg/dl)	2 hr PPBS (mg/dl)	HBA1c (%)
1	209	250	8.2
2	250	310	8.9
3	300	380	9.5
4	200	230	8
5	133	140	8.8
6	180	190	8.1
7	210	250	8.5
8	310	380	8.2
9	190	230	9
10	280	300	8.6
11	285	340	9
12	180	190	8.1
13	270	340	8.8
14	280	320	9
15	190	240	8
Min.	133	140	8
Max.	310	380	9.5
Mean	231.13	272.67	8.58
S.D.	± 53.89	± 72.45	± 0.46

Table (9): Fasting blood sugar (FBS) (mg/dl), two hours post prandial blood sugar (2 hr PPBS) (mg/dl) and glycosylated haemoglobin % (HbA1c) of the diabetic patients with frank proteinuria (Group III).

No.	FBS (mg/dl)	2 hr. PPBS(mg/dl)	HBA1c (%)
1	360	455	9.4
2	240	360	8.8
3	138	200	7.9
4	250	360	8.9
5	369	460	9.8
6	264	250	8.7
7	138	260	8.2
8	388	460	9.6
9	156	260	8.8
10	330	390	9.5
11	309	430	8.9
12	285	280	8.5
13	245	260	8.8
14	180	240	8.7
15	210	260	8.5
Min.	138	200	7.9
Max.	388	460	9.8
Mean	257.47	328.33	8.87
S.D.	± 82.95	± 91.92	± 0.52

Table (10): Fasting blood sugar (mg/dl), two hours post prandial blood sugar (2 hr PPBS) (mg/dl) and glycosylated haemoglobin % (HbA1c) of the control group (Group IV).

No.	FBS (mg/dl)	2 hr. PPBS(mg/dl)	HBA1c (%)
1	90	89	6.3
2	100	90	7.1
3	100	93	6.8
4	95	90	7.3
5	80	72	6.3
6	76	65	6.1
7	90	92	6.5
8	98	90	7
9	85	95	6.1
10	94	82	6.3
Min.	76	65	6.1
Max.	100	95	7.3
Mean	90.80	85.80	6.58
S.D.	± 8.30	± 9.86	± 0.44

Table (11) : statistical analysis of fasting blood sugar (FBS) two hours , postprandial blood sugar (2 h PPBS) and glycosylated haemoglobin % (HBA1c) in the studied groups.

	Group I “n=15”	Group II “n=15”	Group III “n=15”	Group IV “n=10”
FBS (mg/dl) Mean $\pm$ SD .	191.8 $\pm$ 41.91	231.13 $\pm$ 53.89	257.47 $\pm$ 82.95	90.80 $\pm$ 8.30
t1 , p1	6.22,<0.001**	8.21, <0.0001**	9.01,<0.0001**	
t2 , p2		2.31,<0.05*	5.22,<0.01*	
t3, p3			0.98,>0.05 N.S.	
2 hr PP BS (mg/dl) Mean $\pm$ SD	257.33 $\pm$ 79.31	272.67 $\pm$ 72.45	328.33 $\pm$ 91.92	85.8 $\pm$ 9.8
t1 , p1	12.3,<0.0001**	16.3,<0.0001**	17.2,<0.0001**	
t2 , p2		1.98,<0.05*	6.22,<0.001**	
t3, p3			2.71,<0.05*	
HBA1c (%) Mean $\pm$ SD	8.37 $\pm$ 0.65	8.58 $\pm$ 0.46	8.87 $\pm$ 0.52	6.58 $\pm$ 0.44
t1 , p1	2.89,<0.01*	2.65,<0.01*	3.52,<0.01*	
t2 , p2		1.11,>0.05 N.S.	0.98,>0.05N.S.	
t3, p3			0.78,>0.05 N.S.	

p1 comparison between control group and other groups.

p2 comparison between group I and II, III

p3 comparison between group II, III

* Significant at level of 0.05

* Highly significant at level 0.001

NS. = non significant

- This table shows that there is statistically highly significant difference between group I and each of group II and III , but there is statistically non significant difference between group II and III as regards fasting blood sugar (FBS) .
- The table also shows that there is statistically significant difference between each of the three patients groups and the control group , also there is statistically significant difference between group II and III as regards the two hours post prandial blood sugar (2h PP BS) .
- The table also shows that there is statistically significant difference between each of the three patients groups and the control group , but there is no statistically significant difference between group I and each of group II and III or between group II and III as regards the glycosylated haemoglobin (HbA1c) .

Table (12): Serum urea (mg/dl) and serum ceratinine (mg/dl) of the diabetic patients without microalbuminuria (Group I).

No.	Serum urea (mg/dl)	Serum cereatinine (mg/dl)
1	47	1.0
2	40	0.6
3	35	0.8
4	42	1.1
5	45	0.9
6	32	0.6
7	48	1.0
8	43	0.9
9	35	0.5
10	48	1.1
11	37	0.8
12	40	0.6
13	35	0.5
14	40	0.8
15	42	0.7
Min.	32	0.5
Max.	48	1.1
Mean	40.60	0.79
S.D.	± 5.08	± 0.21

Table (13): Serum urea (mg/dl) and serum ceratinine (mg/dl) of the diabetic patients with microalbuminuria (Group II).

No.	Serum urea (mg/dl)	Serum cereatinine (mg/dl)
1	45	1.2
2	50	1.1
3	49	1.8
4	45	1.3
5	50	1.2
6	40	1.6
7	56	1.7
8	40	1.3
9	48	1.1
10	45	1.5
11	46	1.5
12	48	1.2
13	42	1.4
14	45	1.1
15	55	1.6
Min.	40	1.1
Max.	56	1.8
Mean	46.93	1.37
S.D.	± 4.70	± 0.23

Table (14): Serum urea (mg/dl) and serum ceratinine (mg/dl) of the diabetic patients with frank proteinurea (Group III).

No.	Serum urea (mg/dl)	Serum cereatinine (mg/dl)
1	50	1.2
2	40	1.4
3	47	1.5
4	45	1.1
5	48	1.3
6	48	1.7
7	46	1.8
8	50	1.4
9	55	1.9
10	45	1.5
11	46	1.3
12	48	1.1
13	46	1.8
14	55	1.8
15	40	1.1
Min	40	1.1
Max	55	1.9
Mean	47.27	1.46
S.D.	± 4.28	± 0.28

Table (15): Serum urea (mg/dl) and serum creatinine (mg/dl) of the control group (Group IV).

No.	Serum urea (mg/dl)	Serum creatinine (mg/dl)
1	25	0.5
2	30	0.6
3	20	0.5
4	28	0.8
5	39	1.0
6	40	0.9
7	35	0.8
8	38	0.6
9	26	0.5
10	42	0.5
Min	20	0.5
Max	42	1.0
Mean	32.30	0.67
S.D.	± 7.50	± 0.19

Table (16): Statistical analysis of serum urea (mg/dl) and serum creatinine (mg/dl) in the studied groups.

	Group I “n=15”	Group II “n=15”	Group III “n=15”	Group IV “n=10”
Serum urea (mg/dl)				
Mean $\pm$ SD	40.6 $\pm$ 5.08	46.93 $\pm$ 4.70	47.26 $\pm$ 4.28	32.3 $\pm$ 7.5
t1 , p1	2.46,<0.01*	3.68,<0.01*	4.69,<0.01*	
t2 , p2		1.98,>0.05 N.S.	2.01,>0.05 N.S.	
t3, p3			0.68,>0.05 N.S.	
Serum creatinine (mg/dl)				
Mean $\pm$ SD	0.79 $\pm$ 0.21	1.37 $\pm$ 0.23	1.46 $\pm$ 0.28	0.67 $\pm$ 0.19
t1 , p1	3.2,<0.01*	3.99,<0.01*	4.31,<0.001*	
t2 , p2		1.98,<0.05*	2.99,<0.05*	
t3, p3			0.87,>0.05 N.S.	

p1 comparison between control group and other groups.

p2 comparison between group I and II, III

p3 comparison between group II, III

* Significant at level of 0.05

* Highly significant at level 0.001

NS. = non significant

- This table shows that there is statistically significant difference between each of the three patients groups and the control group, also there is statistically significant difference between group I and each of group II and three , but no significant difference between group II and group III regarding the serum urea .
- This table also shows that there is statistically significant difference between each of the three patients groups and the control group , also there is statistically significant difference between group I and each of group II and III , but there is no significant difference between group II and III regarding the serum creatinine.

Table (17): Lipid profile of the diabetic patients without microalbuminuria (Group I).

No.	Serum cholesterol (mg / dl)	Serum Triglycerides (mg / dl)	HDL- C (mg / dl)	LDL – C (mg / dl)
1	166	156	30	104.8
2	222	180	35	151
3	230	370	36	120
4	302	300	37	205
5	111	93	31	61.4
6	222	147	53	139.6
7	188	73	50	123.4
8	160	100	38	102
9	151	108	42	87.4
10	224	160	32	160
11	134	84	36	81.2
12	189	266	30	105.8
13	213	255	35	147
14	283	254	31	220.2
15	146	104	44	75.2
Min.	111	73	30	61.4
Max.	302	370	53	220.2
Mean	196.07	176.67	37.33	125.60
S.D.	± 53.64	± 91.22	± 7.09	± 45.71

HDL – C : serum high density lipoprotein cholesterol .

LDL – C : serum low density lipoprotein cholesterol .

Table (18): Lipid profile of the diabetic patients with microalbuminuria (Group II).

No.	Serum cholesterol (mg / dl)	Serum Triglycerides (mg / dl)	HDL- C (mg / dl)	LDL - C (mg / dl)
1	216	182	32	147.6
2	185	131	34	128.8
3	177	107	30	125.6
4	215	125	60	130
5	216	180	35	150
6	125	94	30	76.2
7	236	168	52	150.4
8	232	163	43	156.4
9	177	107	30	125.6
10	136	168	52	150.4
11	151	108	42	87.4
12	129	68	32	83.4
13	137	56	51	74.8
14	152	66	36	102.8
15	129	68	32	83.4
Min.	125	56	30	74.8
Max.	236	182	60	156.4
Mean	174.20	119.40	39.40	118.19
S.D.	± 40.38	± 44.42	± 9.95	± 30.50

Table (19): Lipid profile of the diabetic patients with frank proteinuria
(Group III).

No.	Serum cholesterol (mg / dl)	Serum Triglycerides (mg / dl)	HDL- C (mg / dl)	LDL - C (mg / dl)
1	243	102	40	182.6
2	302	300	37	205
3	323	163	43	156.4
4	326	168	52	150.4
5	289	266	30	105.8
6	242	175	43	164
7	216	182	32	147.6
8	166	156	30	104.8
9	213	155	35	147
10	134	84	36	81.2
11	236	168	52	150.4
12	152	66	36	102.8
13	232	163	43	156.4
14	215	125	60	130
15	202	461	36	73.8
Min.	134	66	30	73.8
Max.	326	461	60	205
Mean	232.73	182.27	40.33	137.21
S.D.	± 58.35	± 97.87	± 8.70	± 36.93

Table (20): Lipid profile of the control group (Group IV).

No.	Serum cholesterol (mg / dl)	Serum Triglycerides (mg / dl)	HDL-C (mg / dl)	LDL – C (mg / dl)
1	174	45	45	120
2	180	93	48	116
3	190	66	64	74
4	146	113	64	70
5	188	71	48	125
6	200	145	74	93
7	198	125	72	117
8	178	111	47	138
9	173	123	45	103
10	146	92	64	74
Min.	146	45	45	70
Max.	200	145	74	138
Mean	177.30	98.40	57.10	103.00
S.D.	± 18.90	± 30.87	± 11.60	± 24.12

Table (21): Statistical analysis of lipid profile in the studied groups.

	Group I "n=15"	Group II "n=15"	Group III "n=15"	Group IV "n=10"
Cholesterol				
Mean $\pm$ SD	196.07 $\pm$ 53.64	174.2 $\pm$ 40.38	232.73 $\pm$ 58.35	177.3 $\pm$ 18.9
t1, p1	1.89, <0.05*	0.74, >0.05 N.S.	2.58, <0.01*	
t2, p2		1.98, <0.05*	1.99, <0.05*	
t3, p3			2.11, <0.01*	
Triglycerides (T.G.)				
Mean $\pm$ SD	176.67 $\pm$ 91.22	119.4 $\pm$ 44.42	182.27 $\pm$ 97.87	98.4 $\pm$ 30.87
t1, p1	5.21, <0.001**	4.21, <0.01*	5.65, <0.001**	
t2, p2		3.98, <0.01*	0.98, >0.05 N.S.	
t3, p3			3.54, <0.01*	
HDL -C				
Mean $\pm$ SD	37.33 $\pm$ 7.09	39.4 $\pm$ 9.95	40.33 $\pm$ 8.7	57.1 $\pm$ 11.6
t1, p1	2.98, <0.01*	3.08, <0.01*	3.25, <0.01*	
t2, p2		0.98, >0.05 N.S.	0.87, >0.05 N.S.	
t3, p3			0.69, >0.05 N.S.	
LDL-C				
Mean $\pm$ SD	125.6 $\pm$ 45.71	118.19 $\pm$ 30.5	137.21 $\pm$ 36.93	103.0 $\pm$ 24.12
t1, p1	2.05, <0.05*	1.03, >0.05 N.S.	3.52, <0.01*	
t2, p2		1.006, >0.05 N.S.	2.04, <0.05*	
t3, p3			1.98, <0.05*	

p1 comparison between control group and other groups.

p2 comparison between group I and II, III

p3 comparison between group II, III

* Significant at level of 0.05

* Highly significant at level 0.001

N.S. = non significant

- This table shows that there is statistically significant difference between each of group I, III and the control group, but there is statistically non significant difference between group II and the control group, there is also statistically significant difference between group I and each of group II and III and between group II and group III as regards the serum cholesterol.
- The table also shows that there is statistically significant difference between each of the three patients groups and the control group, there is also statistically significant difference between group I and group II but no significant difference between group I and group III also there is statistically significant difference between group II and III as regards the serum triglycerides.
- The table also shows statistically significant difference between each of the three patients groups and the control group, but there is non significant difference between group I and each of group II, III or between group II and III as regards the serum HDL – C.
- The table also shows statistically significant difference between both group I, III and the control group, also it shows significant difference between group I, III and between group II, III, but non significant difference between group II and III as regards the serum LDL – C.

Table (22): Urinary protein in the different studied groups.

No.	Group I	Group II	Group III	Group IV
1	10	50	416	10
2	12	48	356	12
3	17	128	555	7
4	18	38	630	15
5	15	110	730	8
6	7	35	347	10
7	19	68	520	9
8	12	116	625	11
9	6	39	416	13
10	18	156	556	8
11	9	45	620	
12	12	60	722	
13	6	129	340	
14	15	76	460	
15	8	39	566	
Min.	6	38	340	7
Max.	19	156	730	15
Mean	12.27	75.80	523.93	10.30
S.D.	± 4.54	± 40.77	± 130.08	± 2.50
t1	0.68	4.85	8.52	
p1	>0.05 N.S.	<0.0001**	<0.0001**	
t2		6.25	9.98	
p2		<0.0001**	<0.0001**	
t3			11.23	
p3			<0.0001**	

p1 comparison between control group and other groups.

p2 comparison between group I and II, III

p3 comparison between group II, III

* Significant at level of 0.05

** Highly significant at level 0.001

N.S. non significant

- This table shows that there is statistically non significant difference between group I and the control group. It shows that there is statistically highly significant difference between each of group II , III and the control group .
- There is a highly significant difference between group I and each of group II and III , also there is highly significant difference between group II and group III as regards the urinary protein .

Table (23): Serum level of E-selectin (ng / ml) in the different studied groups.

No.	Group I	Group II	Group III	Group IV
1	59.6	85.9	85.6	35
2	42.6	58.3	94.2	46.5
3	62.2	63.6	49.8	38.4
4	32.3	57.2	75.6	28.8
5	48.6	68.2	85.6	47.9
6	36.7	75.0	74.2	40.8
7	55.9	54.6	88.6	52.6
8	68.2	31.6	85.3	32.3
9	5.6	54.6	99.6	58.9
10	87.9	46.5	95.6	28.8
11	69.5	49.8	64.9	
12	62.8	46.5	85.2	
13	43.5	48.9	68.2	
14	52.8	85.6	74.6	
15	76.5	45.8	98.5	
Min.	32.3	31.6	49.8	28.8
Max.	87.9	85.6	99.6	58.9
Mean	59.00	58.14	81.70	41.00
S.D.	± 16.76	±15.23	± 13.84	± 10.27
t1	2.32	1.98	3.52	
p1	<0.05*	<0.05*	<0.01*	
t2		0.98	4.03	
p2		<0.05*	<0.01*	
t3			3.11	
p3			<0.01*	

p1 comparison between control group and other groups.

p2 comparison between group I and II, III

p3 comparison between group II, III

* Significant at level of 0.05

N.S. non significant

- This table shows that there is statistically significant difference between each of the three patients groups and the control group. It shows also that there is non significant difference between group I and group II , but there is statistically significant difference between group I and group III .
- There is also statistically significant difference between group II and group III as regards the serum level of soluble E-selectin .

Table (24): Correlation between the serum level of E-selectin and the other measured variables in all patients.

	E-selectin	
	r	p
Age	-0.03	>0.05 N.S.
Duration	0.47	<0.05*
FBS	0.53	<0.05 *
2h PP BS	0.51	<0.05*
HBA1c	0.48	<0.05*
urea	0.21	>0.05 N.S.
Creatinine	0.26	>0.05 N.S.
Cholesterol	0.01	>0.05 N.S.
T.G.	0.1	>0.05 N.S.
HDL- C	-0.21	>0.05 N.S.
LDL- C	-0.11	>0.05 N.S.
Urinary protein	0.54	<0.01*
SBP	0.45	<0.05*
DBP	0.67	<0.05*

- This table shows that there is statistically significant positive correlation between the serum level of E- selectin and the duration of diabetes , E-selectin increased significantly with increasing the duration of diabetes (r value 0.47) (p value < 0.05) .
- Also a significant positive correlation between serum E-selectin and each of FBS (r value 0.53) (p value < 0.05) , 2 h PPBS (r value 0.51) (p value < 0.05) , HBA1c (r value 0.48) (p value < 0.05) , urinary protein (r value 0.54) (p value < 0.01) , SBP (r value 0.45) (p value <0.05), DBP (r value 0.67) (p value <0.05).

- Table (25): Comparison between the three patients groups regarding the clinical findings .

	Group I “n=15”		Group II “n=15”		Group III “n=15”	
	No.	%	No.	%	No.	%
Neuropathy	7	46.7	3	20.0	3	20.0
p	<0.01 (I, II; I, III)					
Retinopathy	7	46.7	7	46.7	7	46.7
p	>0.05 N.S.					
Ischaemic heart disease	7	46.7	2	13.3	5	33.3
p	<0.01* (II, I; II, III)					

- This table shows that there is statistically significant difference between group I and each of group II and III as regards neuropathy as a complication of diabetes .
- It shows also that there is statistically non significant difference between the different patients groups as regards retinopathy as a complication of diabetes .
- The table shows that there is statistically significant difference between group II and each of group I and III as regards the presence of ischaemic heart disease in those patients .

Group (I) Diabetic patients without microalbuminuria

no	Age (years)	sex (M/F)	Duration of diabetes (years)	fasting blood sugar by mg / dl	Postprandial blood sugar by mg/ dl	glycosylated Hb by (%)	serum urea mg/dl	serum creatinine by mg/dl	serum cholesterol by mg/dl	serum triglycerides mg/dl	HDL mg/dl	LDL mg / dl	urinary protein mg / 24h	C-reactive protein	serum Level of E- selectin by ng/ml
1	38	M	3	195	320	09.1	47	1	166	156	30	104.8	10	-ve	59.6
2	45	M	8	210	320	09.4	40	0.6	222	180	35	151	12	-ve	42.9
3	55	F	10	209	300	08.9	35	0.8	230	370	36	120	17	-ve	62.2
4	60	F	12	194	293	08.5	42	1.1	302	300	37	205	18	-ve	32.3
5	50	F	9	120	130	07.8	45	0.9	111	93	31	61.4	15	-ve	48.6
6	39	F	3	160	180	08.1	32	0.6	222	147	53	139.6	7	-ve	36.7
7	60	M	12	285	400	08.6	48	1	188	73	50	123.4	19	-ve	55.9
8	48	M	8	160	180	07.7	43	0.9	160	100	38	102	12	-ve	68.2
9	37	F	4	194	210	07.3	35	0.5	151	108	42	87.4	6	-ve	85.6
10	65	F	12	247	320	08.9	48	1.1	224	160	32	160	18	-ve	87.9
11	45	M	6	170	200	08.3	37	0.8	134	84	36	81.2	9	-ve	69.5
12	50	F	9	210	320	08.5	40	0.6	189	266	30	105.8	12	-ve	62.8
13	40	M	4	130	170	07.2	35	0.5	213	155	35	147	6	-ve	43.5
14	45	F	8	210	320	08.9	40	0.8	283	154	31	220.2	15	-ve	52.8
15	35	M	3	183	197	08.3	42	0.7	146	104	44	75.2	8	-ve	76.5

Table (26) : Master sheet of the diabetic patients without microalbuminurea.

Group (II)Diabetic patients with microalbuminuria

no	Age (years)	sex (M/F)	Duration of diabetes (years)	fasting blood sugar by mg / dl	Postprandial blood sugar by mg/ dl	glycosylaed Hb by (%)	serum urea mg/dl	serum creatinine by mg/dl	serum cholesterol by mg/dl	serum triglycerides mg/dl	HDL mg/dl	LDL mg / dl	urinary protein mg / 24 h	C-reactive protein	serum Level of E- selectin by ng/ml
1	50	F	10	209	250	8.2	45	1.2	216	182	32	147.6	50	-ve	85.9
2	55	M	12	250	310	8.9	50	1.1	185	131	34	128.8	48	-ve	58.3
3	40	M	8	300	380	9.5	49	0.8	177	107	30	125.6	128	-ve	63.6
4	42	F	7	200	230	8	45	1.3	215	125	60	130	28	-ve	57.2
5	58	F	15	133	140	8.8	50	1.2	216	180	35	150	110	-ve	68.2
6	38	M	6	180	190	8.1	40	1.6	125	94	30	76.2	35	-ve	75
7	48	M	10	210	250	8.5	56	1.7	236	168	52	150.4	68	-ve	54.6
8	50	F	8	310	380	8.2	40	1.3	232	163	43	156.4	116	-ve	31.6
9	43	F	6	190	230	9	48	1.1	177	107	30	125.6	29	-ve	54.6
10	55	F	10	280	300	8.6	45	1.5	236	168	52	150.4	156	-ve	46.6
11	46	M	12	285	340	9	46	1.5	151	108	42	87.4	45	-ve	49.8
12	40	M	8	180	190	8.1	48	1.2	129	68	32	83.4	60	-ve	46.5
13	61	F	4	130	170	8.8	42	1.4	137	65	51	74.8	129	-ve	48.9
14	50	M	10	280	320	9	45	1.1	152	66	36	102.8	76	-ve	85.6
15	37	M	6	190	240	8	55	1.6	129	68	32	83.4	29	-ve	45.8

Table (27) : Master sheet of the diabetic patients with microalbuminurea .

Group (III)Diabetic patients with frank proteinurea

no	Age (years)	sex (M/F)	Duration of diabetes (years)	fasting blood sugar by mg / dl	Postprandial blood sugar by mg/ dl	glycosylaed Hb by (%)	serum urea mg/dl	serum creatinine by mg/dl	serum cholesterol by mg/dl	serum triglycerides mg/dl	HDL mg/dl	LDL mg / dl	urinary protein mg / 24 h	C-reactive protein	Serum Level of E- selectin by ng/ml
1	43	M	15	360	455	9.4	50	1.2	243	102	40	182.6	416	-ve	85.6
2	50	F	12	240	360	8.8	40	1.4	302	300	37	205	356	-ve	94.2
3	48	F	13	138	200	7.9	47	1.5	232	163	43	156.4	355	-ve	49.8
4	55	F	15	250	360	8.9	45	1.1	236	168	52	150.4	630	-ve	45.6
5	60	F	20	369	460	9.8	48	1.3	189	266	30	105.8	730	-ve	85.6
6	40	F	9	264	250	8.7	48	1.7	242	175	43	164	347	-ve	74.2
7	45	F	10	138	260	8.2	46	1.8	216	182	32	147.6	520	-ve	88.6
8	56	F	16	388	460	9.6	50	1.4	166	156	30	104.8	625	-ve	85.3
9	42	M	10	156	260	8.8	55	1.9	213	155	35	147	416	-ve	99.6
10	48	F	9	330	390	9.5	45	1.5	134	84	36	81.2	556	-ve	95.6
11	58	M	18	309	430	8.9	46	1.3	236	168	52	150.4	620	-ve	46.9
12	50	F	20	285	280	8.5	48	1.1	152	66	36	102.8	722	-ve	85.2
13	38	M	8	245	260	8.8	46	1.8	232	163	43	156.4	340	-ve	68.2
14	45	M	7	180	240	8.7	55	1.8	215	125	60	1.30	460	-ve	74.6
15	59	M	15	210	260	8.5	40	1.1	202	461	36	73.8	566	-ve	98.5

Table (28) : Master sheet of the diabetic patients with frank proteinurea.

Group (IV) Control group

no	Age (years)	sex (M/F)	fasting blood sugar by mg / dl	Postprandial blood sugar by mg/ dl	glycosylaed Hb by (%)	serum urea mg/dl	serum creatinine by mg/dl	serum cholesterol by mg/dl	serum triglycerides mg/dl	HDL mg/dl	LDL mg / dl	urinary protein mg /24 h	C-reactive protein	serum Level of E- selectin by ng/ml
1	35	M	90	89	6.3	25	0.5	174	45	45	120	10	-ve	35
2	37	F	100	90	7.1	30	0.6	180	93	48	116	12	-ve	46.5
3	40	F	100	93	6.8	20	0.5	190	66	64	74	7	-ve	38.4
4	52	F	95	90	7.3	28	0.8	146	113	64	70	15	-ve	28.8
5	55	M	80	72	6.3	39	1	188	71	48	125	8	-ve	47.9
6	43	M	76	65	6.1	40	0.9	200	145	74	93	10	-ve	40.8
7	60	F	90	92	6.5	35	0.8	198	125	72	117	9	-ve	52.6
8	45	M	98	90	7	38	0.6	178	111	47	138	11	-ve	32.3
9	38	M	85	95	6.1	26	0.5	173	123	45	103	13	-ve	58.9
10	53	F	94	82	6.3	42	0.5	146	92	64	74	8	-ve	28.8

Table (29) : Master sheet of the control group .

Group (I) : diabetic patients without microalbuminuria.

NO	Systolic Blood pressure (SBP) mmHg	Diastolic blood pressure (DBP) mmHg	Neuropathy	retinopathy	presence of ischaemic heart disease (IHD)
1	160	110	+	+	+
2	110	80	-	-	-
3	130	90	-	-	-
4	110	70	-	-	-
5	120	80	-	-	-
6	110	80	-	-	-
7	140	100	+	-	+
8	150	100	-	+	-
9	120	80	+	-	-
10	130	90	+	-	-
11	160	120	-	-	+
12	120	80	+	+	-
13	120	80	-	-	-
14	110	80	+	-	-
15	110	70	+	-	-

Table (30) : clinical data of patients of group (I) .

NO	Systolic Blood pressure (SBP) mmHg	Diastolic blood pressure (DBP) mmHg	Neuropathy	retinopathy	presence of ischaemic heart disease (IHD)
1	150	100	-	+	+
2	160	105	+	+	+
3	110	70	-	+	-
4	130	90	+	-	-
5	120	80	-	+	+
6	130	90	+	-	-
7	160	110	+	-	+
8	120	80	-	-	-
9	110	70	-	-	-
10	170	110	+	-	+
11	130	85	-	-	-
12	120	80	-	+	-
13	150	100	+	+	+
14	140	100	-	-	+
15	120	80	+	+	-

Table (31) : clinical data of patients of group (II) .

NO	Systolic Blood pressure (SBP) mmHg	Diastolic blood pressure (DBP) mmHg	Neuropathy	retinopathy	presence of ischaemic heart disease (IHD)
1	110	70	-	-	-
2	130	85	+	+	-
3	150	100	-	+	+
4	120	70	-	-	-
5	140	80	-	-	-
6	130	90	+	-	-
7	130	100	+	-	-
8	140	90	+	-	-
9	160	110	+	-	+
10	150	100	-	-	+
11	140	90	+	-	-
12	110	80	-	-	-
13	130	90	-	-	+
14	160	105	+	-	+
15	150	100	-	-	-

Group (IV) :Control group .

NO	Systolic Blood pressure (SBP) mmHg	Diastolic blood pressure (DBP) mmHg
1	110	70
2	120	80
3	100	60
4	110	70
5	100	70
6	120	80
7	90	70
8	120	80
9	100	60
10	120	80

Table (33) : Blood pressure of the control group .