

Table (1): Comparison between the three studied groups regarding Fasting Glucose, Insulin and HBA1c %.

Item	Group	Mean	±S.D.	Min.	Max.	ANOVA	p
Fasting Glucose (mmol/)	Control group	4.68	0.56	3.90	5.40	93.320	0.0001**
	Group I (DM without Nephropathy)	11.29	2.01	8.50	16.00		
	Group II (DM with Nephropathy)	13.86	1.97	10.00	17.00		
Insulin (pmol/L)	Control group	62.10	11.20	42.00	80.00	44.274	0.0001**
	Group I (DM without Nephropathy)	108.85	29.04	53.80	175.00		
	Group II (DM with Nephropathy)	198.26	66.96	112.00	345.00		
HBA1c (%)	Control group	5.07	0.79	3.90	6.20	78.518	0.0001**
	Group I (DM without Nephropathy)	8.47	1.14	6.80	11.20		
	Group II (DM with Nephropathy)	9.88	1.07	7.80	11.50		

Table (2): Comparison between the three studied groups regarding HOMA level.

Item	Group	Mean	±S.D.	Min.	Max.	ANOVA	p
Beta cell function % (HOMA2 %B)	Control group	124.09	33.07	83.20	194.70	145.489	0.0001**
	Group I (DM without Nephropathy)	36.00	10.33	18.00	57.20		
	Group II (DM with Nephropathy)	41.83	9.67	18.50	66.50		
Insulin sensitivity (HOMA2%S)	Control group	91.10	19.44	71.60	136.10	112.036	0.0001**
	Group I (DM without Nephropathy)	44.52	13.97	22.50	83.50		
	Group II (DM with Nephropathy)	23.41	8.21	10.00	41.60		
Insulin resistance (HOMA2 IR)	Control group	1.13	0.22	0.70	1.40	39.806	0.0001**
	Group I (DM without Nephropathy)	2.45	0.75	1.20	4.40		
	Group II (DM with Nephropathy)	4.89	1.98	2.40	10.00		

Table (3): Comparison between the three studied groups regarding sICAM-1, Nitric oxide and MDA.

Item	Group	Mean	±S.D.	Min.	Max.	ANOVA	p
sICAM-1 (ng/ml)	Control group	228.80	64.70	149.00	309.00	5.213	0.008*
	Group I (DM without Nephropathy)	284.12	49.69	175.00	345.00		
	Group II (DM with Nephropathy)	284.18	47.01	180.00	355.00		
Nitric oxide	Control group	33.47	8.25	22.40	46.00	1.681	0.193

(μmol/L)	Group I (DM without Nephropathy)	35.38	4.40	29.00	54.00		
	Group II (DM with Nephropathy)	36.62	4.16	30.00	54.00		
MDA (μmole/L)	Control group	0.98	0.37	0.25	1.45	16.470	0.0001*
	Group I (DM without Nephropathy)	2.71	1.01	1.50	4.90		
	Group II (DM with Nephropathy)	3.00	1.08	1.60	4.90		

Table (4): Comparison between the three studied groups regarding GSH and SOD.

Item	Group	Mean	±S.D.	Min.	Max.	ANOVA	p
GSH (ng/ml)	Control group	13.90	0.53	13.00	14.90	2.129	0.126
	Group I (DM without Nephropathy)	13.54	0.64	12.80	14.90		
	Group II (DM with Nephropathy)	13.44	0.63	12.70	14.80		
SOD activity (u/ml)	Control group	10.59	1.12	8.80	12.20	28.165	.0001*
	Group I (DM without Nephropathy)	11.91	1.84	8.90	14.60		
	Group II (DM with Nephropathy)	14.76	2.12	11.90	20.00		

Table (5): Comparison between the three studied groups regarding lipid profile.

Item	Group	Mean	±S.D.	Min.	Max.	ANOVA	p
S. Cholesterol (mg/dl)	Control group	170.0	14.3	150.0 0	190.0 0	62.538	0.0001*
	Group I (DM without Nephropathy)	222.7	42.5	150.0 0	290.0 0		
	Group II (DM with Nephropathy)	305.7	40.9	240.0 0	370.0 0		
S. Trig(mg/dl)	Control group	139.2	11.6	115.0 0	152.0 0	43.678	0.0001*
	Group I (DM without Nephropathy)	186.1	33.7	115.0 0	290.0 0		
	Group II (DM with Nephropathy)	248.7	44.1	165.0 0	325.0 0		
HDL(mg/dl)	Control group	55.5	10.2	40.00	69.00	7.165	0.001*
	Group I (DM without Nephropathy)	47.8	8.5	37.00	69.00		
	Group II (DM with Nephropathy)	45.3	5.2	36.00	56.00		
LDL(mg/dl)	Control group	86.7	15.0	56.00	99.00	51.077	0.0001*
	Group I (DM without Nephropathy)	137.7	42.3	52.80	210.0 0		
	Group II (DM with Nephropathy)	210.6	40.5	135.0 0	281.0 0		

Table (6): Comparison between the three studied groups regarding kidney function.

Item	Group	Mean	±S.D.	Min.	Max.	ANOVA	p
S. Creatinine(mg/dl)	Control group	0.83	0.19	0.55	1.15	46.458	0.0001*
	Group I (DM without Nephropathy)	1.08	0.23	0.55	1.40		
	Group II (DM with Nephropathy)	1.66	0.38	1.25	3.00		
B. Urea(mg/dl)	Control group	26.20	6.99	16.00	35.00	47.910	0.0001*
	Group I (DM without Nephropathy)	33.91	6.90	16.00	43.00		
	Group II (DM with Nephropathy)	51.03	10.58	35.00	75.00		
Urine Creatinine(mg/dl)	Control group	301.00	48.92	240.00	380.00	.754	0.474
	Group I (DM without Nephropathy)	306.56	27.06	255.00	375.00		
	Group II (DM with Nephropathy)	296.65	33.71	235.00	358.00		
Urine microalbumen(mg/dl)	Control group	8.00	1.60	6.00	11.00	61.242	0.0001*
	Group I (DM without Nephropathy)	8.21	1.35	5.60	10.70		
	Group II (DM with Nephropathy)	86.03	46.43	35.00	230.00		
A/C Ratio (mg/gcreatinine)	Control group	26.54	2.46	22.60	29.30	43.398	0.0001*
	Group I (DM without Nephropathy)	26.74	3.42	18.50	30.10		
	Group II (DM with Nephropathy)	304.88	197.10	116.70	978.70		

Table (7): Correlation between different studied markers.

Item		sICAM-1 ng/ml	Insulin pmol/L	Nitric oxide µmol/L	MDA µmole/ L	SOD activity u/ml
sICAM-1 (ng/ml)	Pearson Correlation	-	0.305**	0.350**	0.432**	0.243*
	p		0.007	0.002	0.000	0.032
Insulin (pmol/L)	Pearson Correlation	0.305**	-	0.197	0.577**	0.730**
	p	0.007		0.084	0.000	0.000
Nitric oxide (µmol/L)	Pearson Correlation	0.350**	0.197	-	0.109	0.285*
	p	0.002	0.084		0.342	0.011
MDA (µmole/L)	Pearson Correlation	0.432**	0.577**	0.109	-	0.467**
	p	0.000	0.000	0.342		0.000
SOD activity (u/ml)	Pearson Correlation	0.243*	0.730**	0.285*	0.467**	-
	p	0.032	0.000	0.011	0.000	
**. Correlation is significant at the 0.01 level (2-tailed).						
*. Correlation is significant at the 0.05 level (2-tailed).						

Table (8): Correlation between sICAM-1 and urine microalbumin and blood urea.

sICAM-1 #	Person correlation	P
Blood urea	0.292	0.009*
Urine microalbumin urea	0.277	0.0133*