

RESULTS

Table (4) : Comparison between cases and controls as regard age

Studied groups Age in years	Cases (n = 34)	Controls (n = 20)
$\bar{X}$	13.029	10.95
$\pm$ SD	± 2.897	± 4.161
t	1.971	
p	> 0.05	

This table shows no significant difference between cases and controls as regard age

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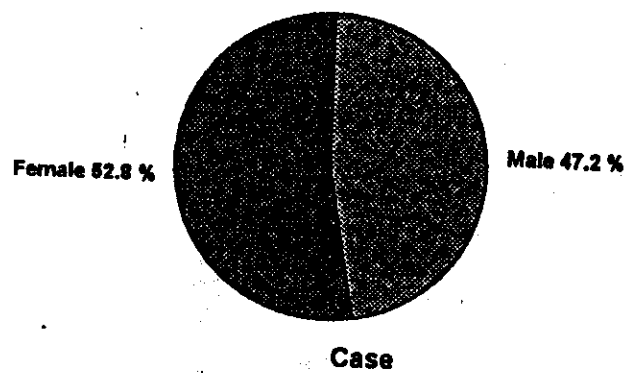


Figure (1) Piechart showing sex distribution of 34 IDDM patients.

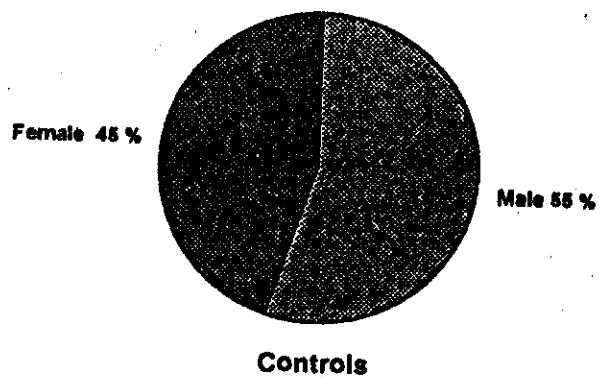


Figure (2) Piechart showing sex distribution of 20 normal control.

Table (6) : Fasting and 2 hours serum glucose levels in IDDM patients and control group.

Studied groups BL. Sugar mg / dl	Cases			Controls			t	p
	$\bar{X}$	$\pm$	SD	$\bar{X}$	$\pm$	SD		
FBS	206.82	$\pm$	39.99	75.15	$\pm$	5.976	18.844	< 0.001
BL.S after 2H	317.54	$\pm$	61.28	93.75	$\pm$	4.253	21.208	< 0.001

This table shows a significant increase in fasting and after 2H serum glucose levels in cases compared with control group.

Table (7) : Distribution of the cases and controls according to results of ANA.

Studied groups	ANA	Positive		Negative	
		No.	%	No.	%
Cases		5	14.7	29	85.3
Controls		0	0	20	100.0
Z		0		1.285	
P		> 0.05			

This table shows no significant difference between cases and controls as regard prevalence of positivity of ANA

Table (7) : Distribution of the cases and cotnrols according to results of ANA.

Studied groups \ ANA	Positive		Negative	
	No.	%	No.	%
Cases	5	14.7	29	85.3
Controls	0	0	20	100.0
Z	0		1.285	
P	> 0.05			

This table shows no significant difference between cases and cotnrols as ragard prevalence of positivity of ANA

Table (8) Lipid profile levels in IDDM patients and control group.

Studied groups IDDM (mg %)	Cases			Controls			t	p
	$\bar{X}$	$\pm$	SD	$\bar{X}$	$\pm$	SD		
cholesterol	186.88	$\pm$	36.79	147.25	$\pm$	8.955	5.986	<0.001
triglyceride	85.118	$\pm$	28.995	75.5	$\pm$	5.826	1.871	> 0.05
HDL-C	46.65	$\pm$	7.98	47.5	$\pm$	5.46	0.46	> 0.01
LDL-C	123.74	$\pm$	34.37	48.69	$\pm$	9.98	6.2	<0.001

Table shows :-

- significant increase in serum cholesterol levels in cases compared with controls
- no significant increase in serum triglyceride levels in cases compared with controls
- no significant increase in serum HDL-C levels in controls compared with cases
- significant increase in serum LDL-C levels in cases compared with controls

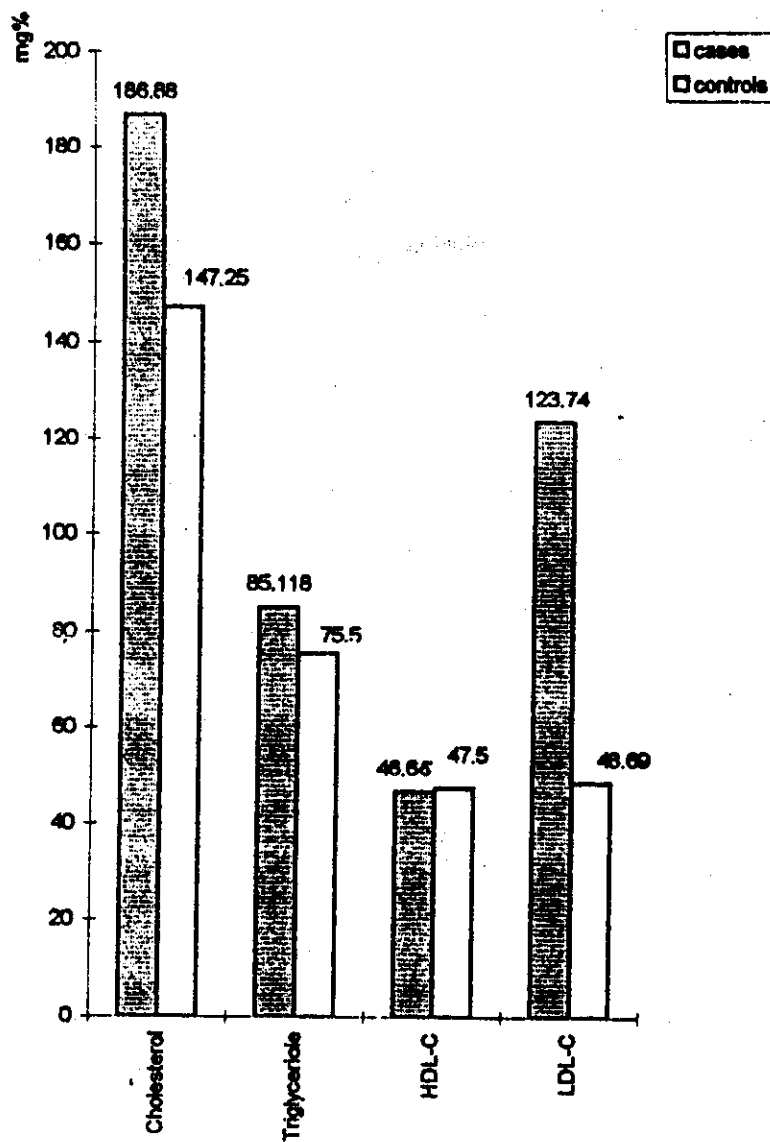


Figure (3): Lipid profile in IDDM patients and control group

Table (10) Clinical and laboratory findings in subjects with IDDM divided according to presence or absence of ACA IgG.

Cases Variables	ACA IgG + ve (n = 9)		ACA IgG - ve (n = 25)		Significance	
						P
Age in years	12.333	± 2.345	13.28	± 3.076	t 0.952	> 0.05
male/ female ratio	4 : 5		12 : 13		χ^2 2.2	> 0.05
Disease duration in years	3.556	± 2.128	4.76	± 3.358	t 1.233	> 0.05
FBS mg / dl	219.667	± 54.615	202.16	± 33.511	t 0.902	> 0.05
Bl. sugar after 2H mg / dl	336.889	± 92.56	308.88	± 46.589	t 0.869	> 0.05
HBA1c %	10.622	± 1.871	8.756	± 1.794	t 2.593	< 0.05
Microangiopathic complication	(n = 5)	55.5 %	(n = 4)	16 %	χ^2 5.3	< 0.05

This table compares ACA IgG positive and negative cases and shows :-

- no significant difference between ACA IgG positive and negative cases as regard age
- no significant difference between ACA IgG positive and negative cases as regard sex

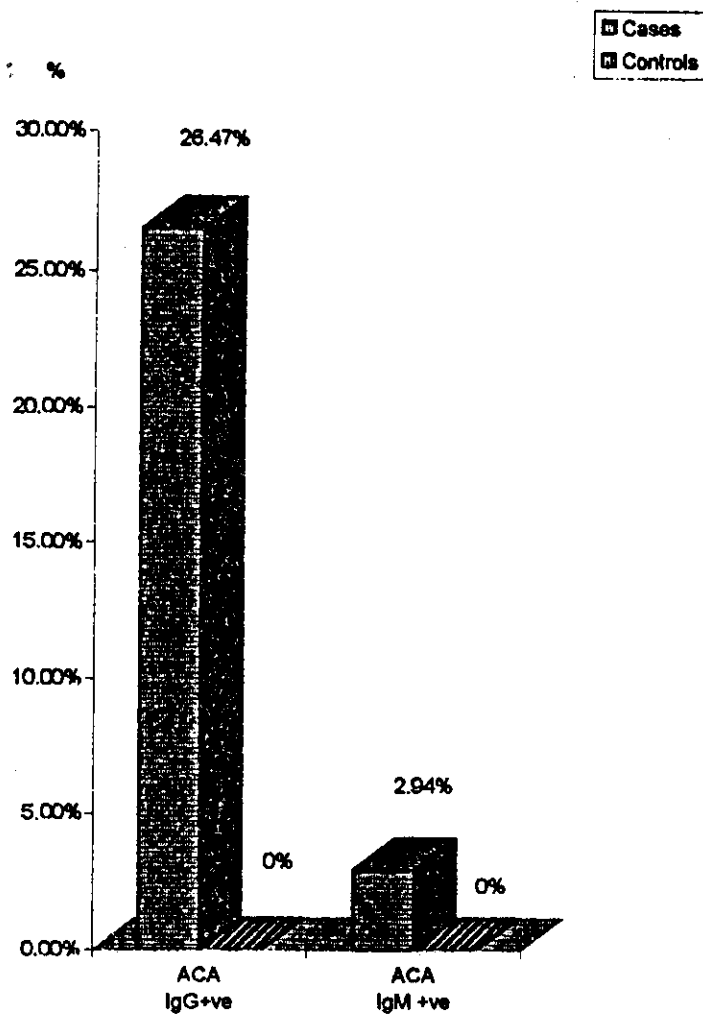


Figure (4): Prevalence of ACA IgG and ACA IgM in cases and controls

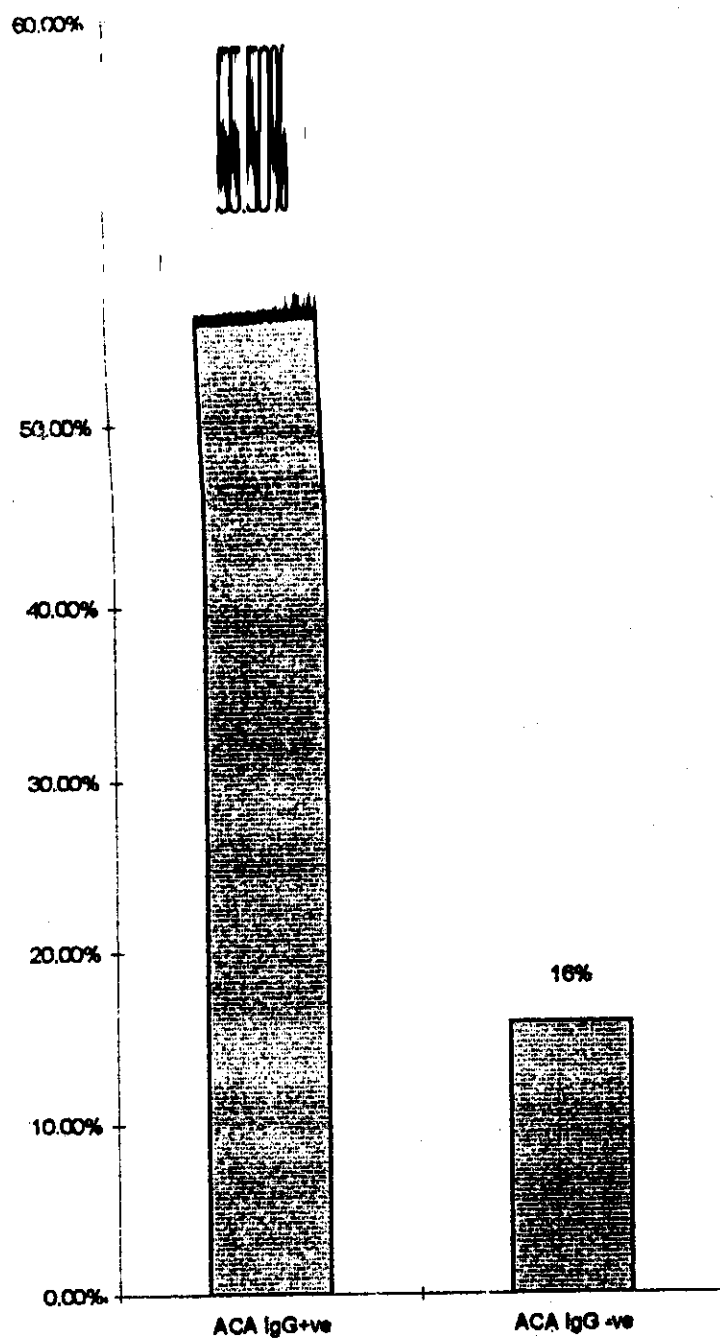


Figure (6): Microangiopathic complications in ACA IgG and negative ACA IgG patients

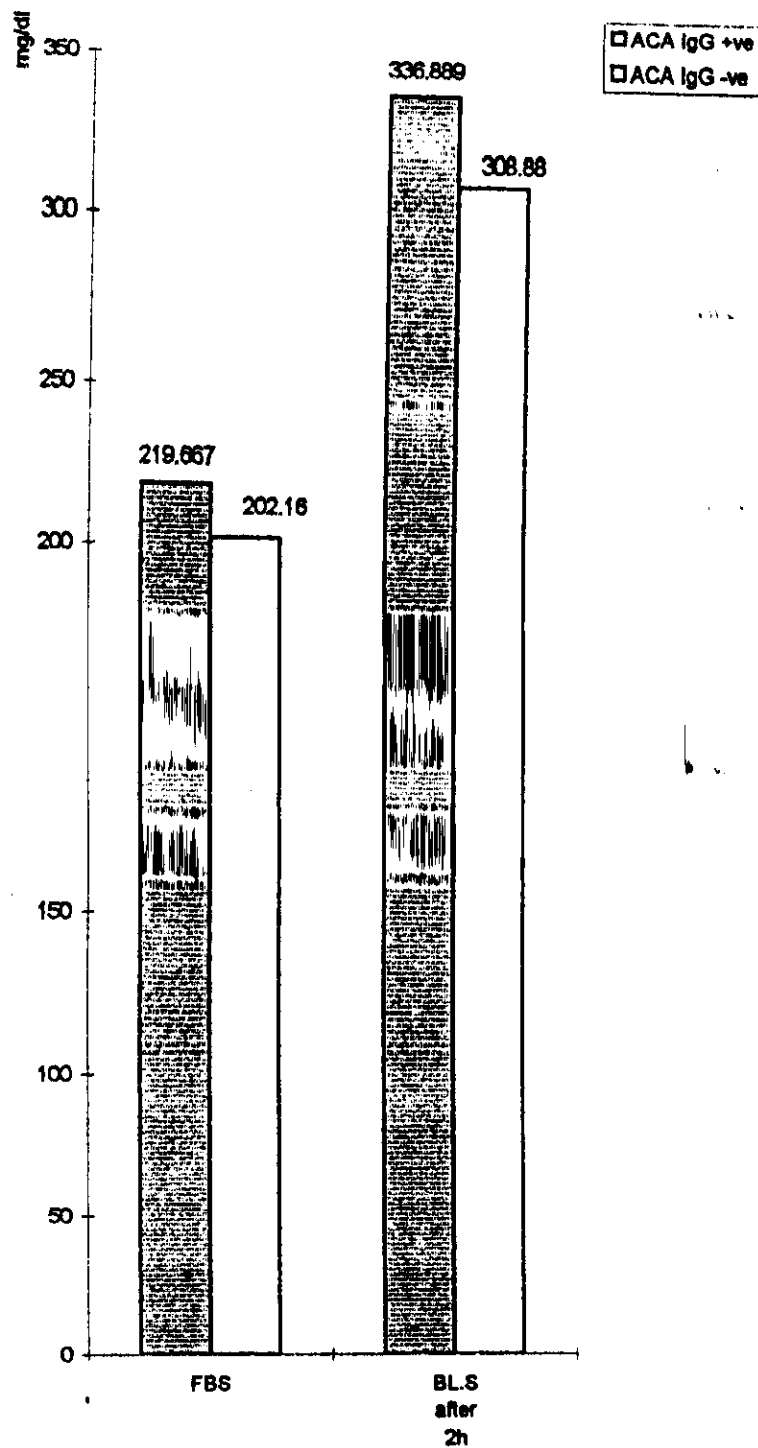


Figure (7): Fasting and 2 hours serum glucose levels in positive ACA IgG and negative ACA IgG patients

- no significant difference between ACA IgG positive and negative cases as regard disease duration.
- no significant increase in fasting Bl. Sugar in ACA IgG positive cases compared with ACA IgG negative cases.
- no significant increase in Bl. Sugar after 2H in ACA IgG positive cases compared with ACA IgG negative cases.
- a significant increase in HbA1c levels in ACA IgG positive cases compared with ACA IgG negative cases.
- a significant increase in the percentage of microangiopathic complications in ACA IgG positive cases compared with ACA IgG negative cases.

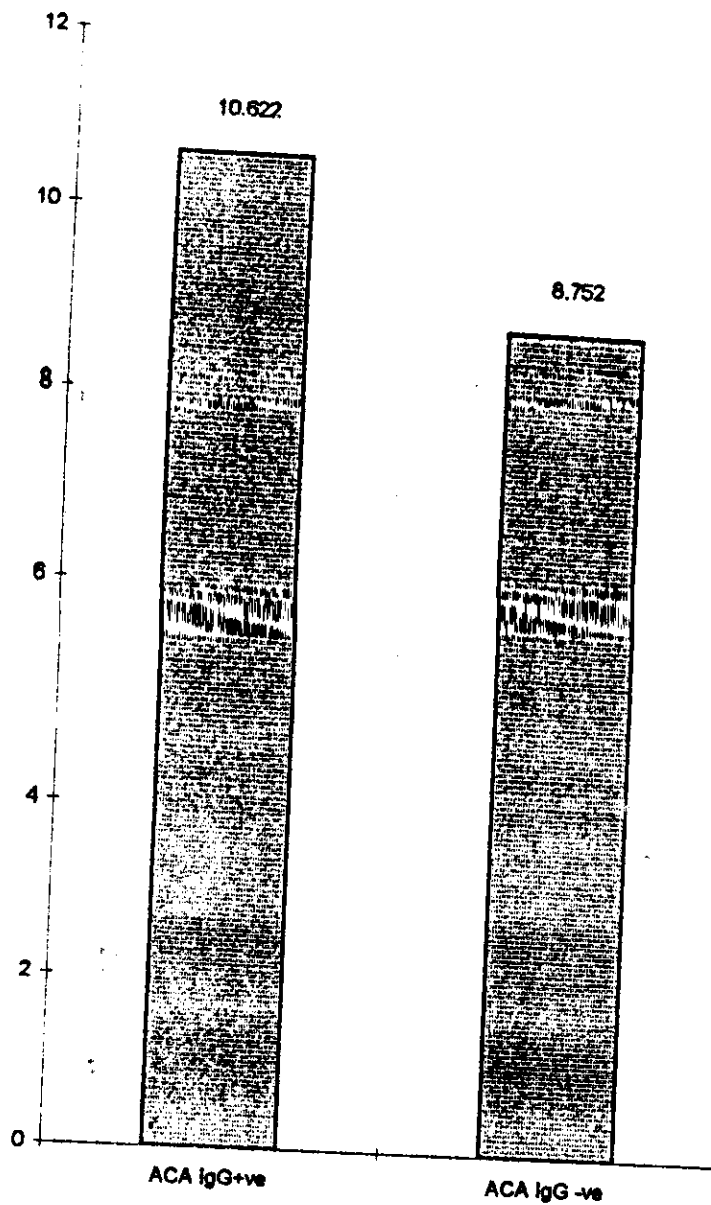


Figure (5): Glycated hemoglobin (HBAIC) in positive ACA IgG and in negative ACA IgG patients

Table (11) : Lipid profile in diabetic subjects divided according to presence or absence of ACA (IgG).

ACA IgG Lipid profile	Positive ACA IgG (n = 9)			negative ACA IgG (n = 25)			t	p
	$\bar{X}$	$\pm$	SD	$\bar{X}$	$\pm$	SD		
Cholesterol	200.889	$\pm$	40.349	182.64	$\pm$	34.64	1.206	> 0.05
Triglyceride	106.778	$\pm$	21.948	77.32	$\pm$	27.498	3.219	< 0.01
HDL-C	46.333	$\pm$	9.394	46.76	$\pm$	7.628	0.123	> 0.05
LDL-C	132.889	$\pm$	40.167	120.44	$\pm$	32.31	0.837	> 0.05

This table compares ACA IgG positive and ACA IgG negative as regard lipid profile and shows :-

- no significant increase in serum cholesterol levels in ACA IgG positive cases compared with ACA IgG negative cases
- a significant increase in serum triglyceride levels in ACA IgG positive cases compared with ACA IgG negative cases
- non significant difference between ACA IgG positive and negative cases as regard serum HDL-C levels.
- non significant difference between ACA IgG positive and negative cases as regard serum LDL-C levels

Table (12) : Clinical and Laboratory data in subjects with insulin dependent diabetes mellitus (IDDM).

No	Age yr	Sex	duration yr	Bl. sugar		ANA	HbA1c %	Lipid Profile				ACA		complication
				fasting	after 2h			cholest mg %	Trigly mg%	HDL mg%	LDL mg%	IgG GPL	IgM MPL	
1	16	♀	5	190	307	+	11.5	244	105	43	180	11.6-	5.8-	Retinopathy
2	13	♀	4	200	350	-	11	235	107	42	170	30.3+	3.7-	—
3	17	♀	12	220	370	-	7	234	130	54	155	9.0-	2.6-	—
4	15	♀	9	200	390	-	12.5	233	115	56	154	23.7+	8.9-	Retinopathy
5	10	♀	5	195	310	-	8.8	210	75	60	135	19.7-	8.7-	—
6	11	♀	3	210	340	-	6.6	141	58	48	81	11.0-	3.0-	—
7	9	♀	4	191	260	-	11.6	150	90	50	82	9.7-	2.8-	Retinopathy
8	20	♂	11	220	350	-	9.5	208	74	62	131	11.6-	11.9+	—
9	10	♂	8	200	370	-	10.5	160	70	40	106	8.7-	9.7-	Retinopathy
10	19	♂	15	200	360	-	9.8	280	160	38	210	9.7-	1.9-	—
11	9	♂	2	190	320	-	10	150	85	51	82	12.3-	2.7-	—
12	8	♀	3	200	310	-	11.7	278	154	35	212	28.1+	7.4-	—
13	11	♀	2	211	332	-	7.6	192	56	38	143	11-	9-	—
14	11	♀	3	149	298	-	6.9	144	44	38	97	18-	9-	—

No	Age yr	Sex	duration yr	Bl. sugar		ANA	HbA1c %	Lipid Profile					ACA		complication
				fasting	after 2h			cholest mg %	Trigly mg%	HDL mg%	LDL mg%	IgG GPL	IgM MPL		
15	14	♀	3	189	253	-	6.9	161	82	44	101	17-	8-	-	
16	16	♂	3	311	518	+	11	169	81	49	104	36+	7-	Retinopathy	
17	15	♀	4	262	319	-	10.2	172	95	46	107	17-	11-	-	
18	14	♂	3	311	390	-	8.1	141	58	41	88	12-	10-	-	
19	10	♂	2	166	222	-	7.9	159	36	43	109	17-	10-	-	
20	11	♂	2	171	312	-	6.9	219	58	41	166	13-	9-	-	
21	11	♂	3	192	266	-	7.5	202	111	51	128	44+	8-	nephropathy	
22	15	♀	6	209	292	-	8.4	190	62	61	116	15-	8-	Retinopathy	
23	13	♂	4	165	241	-	10.3	181	66	53	115	11-	8-	-	
24	16	♀	5	186	298	-	11.2	171	55	44	116	10-	9-	-	
25	16	♀	5	193	269	-	6.8	166	69	49	103	15-	10-	-	
26	16	♂	3	205	292	+	8.8	179	77	41	123	19-	9-	-	
27	12	♀	2	239	411	-	7.6	158	93	35	104	49+	9-	Retinopathy	
28	12	♂	3	211	381	-	8.2	201	56	38	152	18-	6-	-	
29	13	♀	3	301	309	-	10.6	181	119	45	112	52-	4-	-	

No	Age yr	Sex	duration yr	BL sugar		ANA	HbA1c %	Lipid Profile					ACA		complication
				fasting	after 2h			cholest mg %	Trigly mg%	HDL mg%	LDL mg%	IgG GPL	IgM MPL		
30	14	♂	3	233	283	+	12.1	166	82	56	94	21-	4-		
31	12	♂	2	144	211	-	11.1	190	92	41	131	38+	5-	Retinopathy	
32	11	♂	2	219	321	-	6.8	166	114	39	104	20-	4-		
33	11	♀	3	190	267	-	12.6	162	89	63	81	39+	4-		
34	12	♂	4	159	232	+	6.5	181	76	51	115	21-	10-		

Table (13) Laboratory data in Control Group.

No	Age yr	Sex	Bl. Sugar		ANA	Lipid Profile				ACL	
			Fasting	After 2h		Cholest	Trigly	HDL	LDL	IgG Gpl	IgM Mpl
1	7	♂	60	100	-	150	70	50	86	19.1-	1.1-
2	18	♀	73	90	-	130	75	45	70	4.8-	1.6-
3	16	♀	70	90	-	140	70	48	78	20.8-	1.3-
4	14	♀	70	95	-	135	80	50	69	19.5-	1.3-
5	10	♂	80	95	-	145	70	48	83	22.4-	1.1-
6	11	♂	75	90	-	150	75	38	97	18.2-	0.8-
7	8	♀	80	90	-	145	80	45	84	19.2-	1.4-
8	7	♂	75	95	-	145	70	49	82	10.1-	2.8-
9	9	♂	70	95	-	150	80	45	89	11.9-	3.0-
10	10	♀	80	90	-	165	75	59	91	21.6-	1.1-
11	10	♀	80	100	-	145	70	49	82	22.6-	1.3-
12	8	♂	85	100	-	165	85	45	103	9.9-	2.9-
13	14	♂	70	95	-	155	90	43	94	6.9-	2.3-
14	9	♀	80	90	-	150	80	45	89	8.5-	2.5-
15	15	♂	70	90	-	145	75	58	72	22.4-	1.3-
16	17	♀	80	100	-	155	70	45	96	12.3-	2.3-
17	18	♂	80	100	-	135	80	50	69	12.4-	3.2-
18	6	♂	80	90	-	150	75	38	97	11.8-	3.0-
19	8	♀	75	85	-	140	70	45	81	10.1-	2.8-
20	6	♂	70	90	-	150	70	55	81	11.8-	3.0-