Results

This study is a cross sectional analytic study that was conducted in order to investigate the athrogenic profile for coronary artery disease in patients living Qualioubia Governorate.

Five hundred patients with coronary artery disease (either acute or chronic) are included in the study, they are 145 females (29%) and 355 males (71%) (table 7 and Fig. 16).

Their age ranged between 32 to 71 years old with a mean age of 52 ± 14 years, their mean weight is 84 ± 15.9 Kg, their mean height is 168.8 ± 8.05 Cm, their pulse is 86.5 ± 10.7 b/min., their systolic BP is 145.4 ± 15.8 mm Hg, their diastolic BPis 93.4 ± 5.2 mm Hg (table 8 and fig. 17).

One hundred ninteen patients (23.8%) are illitrate, 102 patients (20.4%) can read and right, 128 patients (25.6%) have middle education, and 151 patients (30.2%) are highly educated (table 9 and fig. 18).

Ninty seven patients (19.4%) don't work or retired, 179 patients (35.8%) are manual workers, 141 patients (28.2%) office work and 83 patients (16.6%) high mental work (table 10 and fig. 19).

Results of the current study show that 196 patients (39.2%) have DM, 200 patients (40%) have hypertension, 362 patients (72.4%) are smokers, 138 patients (27.6%) have dyslipidemia, 91 patients (18.2%) have +ve family history of premature CAD, 211 patients (42.2%)are obese and 139 patients (27.8%) have physical inactivity and living a sedentary life (table 11 and fig. 20).

Results of the current study regarding distribution of risk factors for CAD among the studied patients show that 1 risk factor is found in 39 patients (7.8%), 2 risk factors are found in 164 patients (32.8%), 3 risk factors are found

in 206 patients (41.2%) and more than 3 risk factors are found in 91 patients (18.2%) (table 12 and fig. 21).

Results of the current study regarding the different laboratory investigations among all the studied patients show that fasting blood sugar is125 ± 15.7 g/dl, post-prandial blood sugar is 186 ± 12.5 g/dl, total cholesterol is 207.9 ± 49.8, HDL is 34.6 ± 4.1, LDL is 115.4 ± 41.3, TG is 174.6 ± 22.4, uric acid is 5.3 ± 1.9, GPT is 27.3 ± 9.6, GOT is 25.6 ± 10.3, urea is 33.6 ± 7.6 and creatinine is 0.92 ± 0.02 (Table 13).

Results of the current study regarding control of diabetes show that 112 patients (57.1%) are controlled and 84 patients (42.8%) are not controlled (Table 14 and fig. 22).

Results of the current study regarding type of diabetes show that 87 patients (44.8 %) are type 1 diabetes mellitus and 109 patients (53.2 %) are type 2 diabetes mellitus. (Table 15 and fig. 23).

Results of the current study regarding control of hypertension show that 123 patients (61%) are controlled and 77 patients (39%) are not controlled (Table 16 and fig. 24).

Results of the current study regarding distribution of obesity show that 68 patients (32.2%) have mild obesity, 49 patients (23.3%)have moserate obesity and 94 patients (44.5%) have severe obesity (Table 17 and fig. 25).

Results of the current study regarding type of coronary artery disease among all the studied patients show that 224 patients (44.8%)have stable CAD, 93 patients (18.6%) have unstable angina, 76 patients (15.2%) have acute MI and 107 patients (21.4%) have old MI (Table 18 and fig. 26).

Results of the current study regarding laboratory investigations among patients with acute and chronic CAD show that the fasting and post prandial blood sugar is significantly higher among patients with acute CAD than those with chronic CAD ($P < 0.05$). Also the total cholesterol, LDL and triglycerides are significantly higher among patients with acute CAD than those with chronic CAD ($P < 0.05$). There is no significant difference between the two groups of patients regarding the HDL level ($P > 0.05$) (Table 19 and fig. 27).

Results of the current study regarding the distribution of risk factors among patients with acute and chronic coronary artery disease show that 1 risk factor is found in 9 patients (5.3%) of those with acute CAD versus 30 patients (9.1%) of those with chronic CAD, 2 risks factor is found in 60 patients (35.5%) of those with acute CAD versus 104 patients (31.3%) of those with chronic CAD, 3 risk factors is found in 76 patients (42%) of those with acute CAD versus 130 patients (39.3%) of those with chronic CAD, and > 3 risk factors is found in 24 patients (14.2%) of those with acute CAD versus 67 patients (20.2%) of those with chronic CAD. The difference between the two groups is not significant $P > 0.05$) (Table 20 and fig. 28).

Results of the current study regarding laboratory investigations among diabetic and non-diabetic patients show that the fasting and post prandial blood sugar is significantly higher among diabetic patients than non-diabetic patients ($P < 0.05$). Also the total cholesterol, LDL and triglycerides are significantly higher among diabetic patients than non-diabetic patients ($P < 0.05$). There is no significant difference between the two groups of patients regarding the HDL level ($P > 0.05$) (Table 21 and fig. 29).

Results of the current study regarding laboratory investigations among hypertensive and normotensive patients show that the fasting and post prandial blood sugar is significantly higher among hypertensive patients than

normotensive patients (P < 0.05). The total cholesterol, HDL, LDL and triglycerides were not significantly higher among hypertensive patients than normotensive patients (P > 0.05) (table 22 and fig. 30).

Table (7): Sex distribution of the studied patients and controls

	All patients	
	N	%
Females	145	29
Males	355	71
Total	500	100

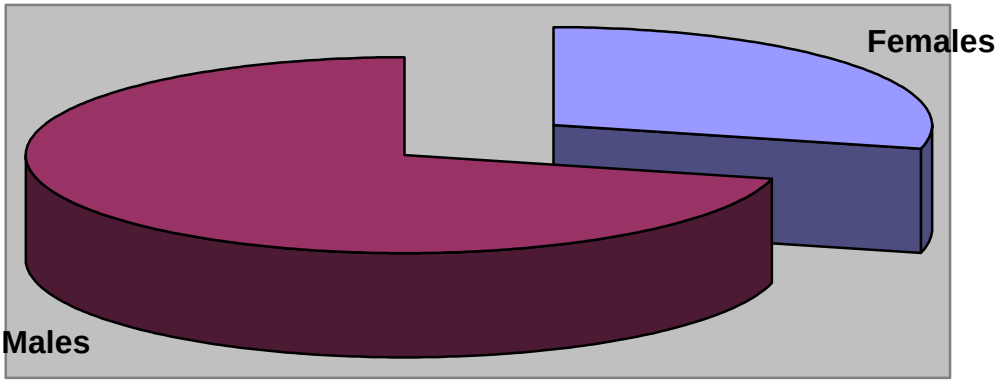

Fig. (16): Sex distribution of the study group

Table (8): General characteristics of all the studied patinets

	Studied group Mean ± SD
Age (years)	52.5 ± 14.0
Weight (Kg)	84.0 ± 15.9
Height (Cm)	168.8 ± 8.05
Pulse (B/min.)	86.5 ± 10.7
Systolic BP (mm Hg)	145.4 ± 15.8
Diastolic BP (mm Hg)	93.4 ± 5.2

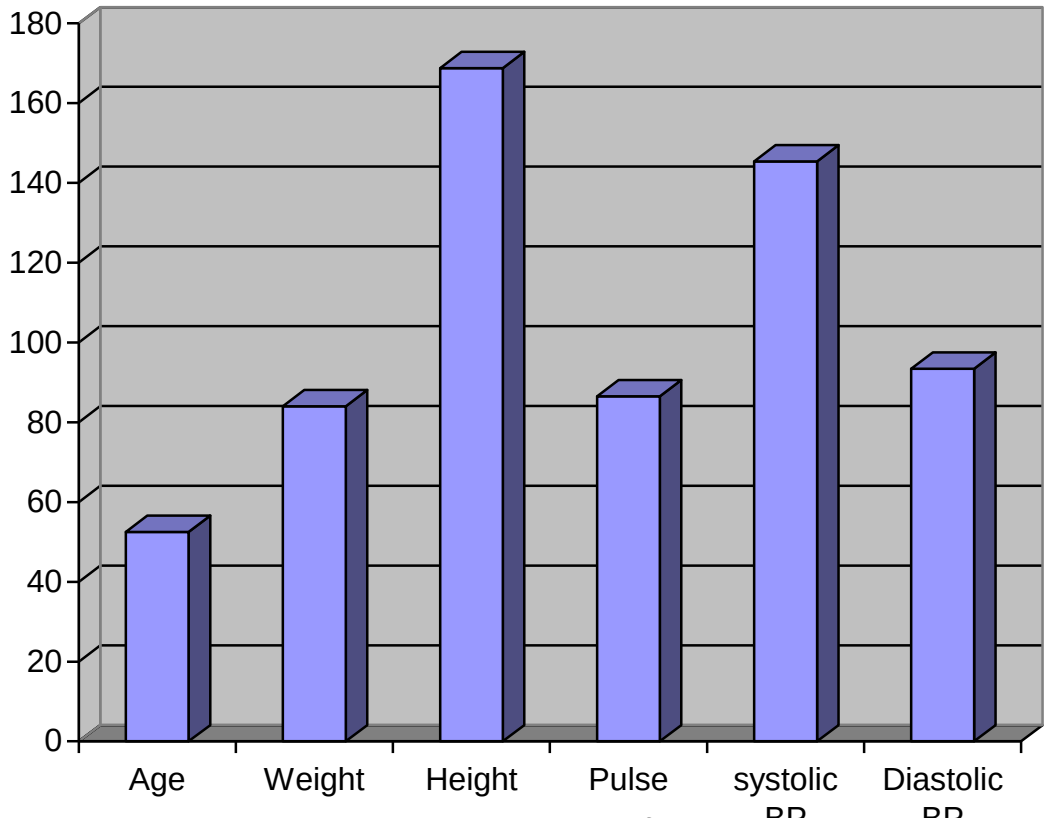

Fig. (17): General characteristics of all the studied patients

Table (9): Educational level of all the studied patients

	Studied group	
	N	%
Illiterate	119	23.8
Read and right.	102	20.4
Middle education	128	25.6
High education	151	30.2
Total	500	100

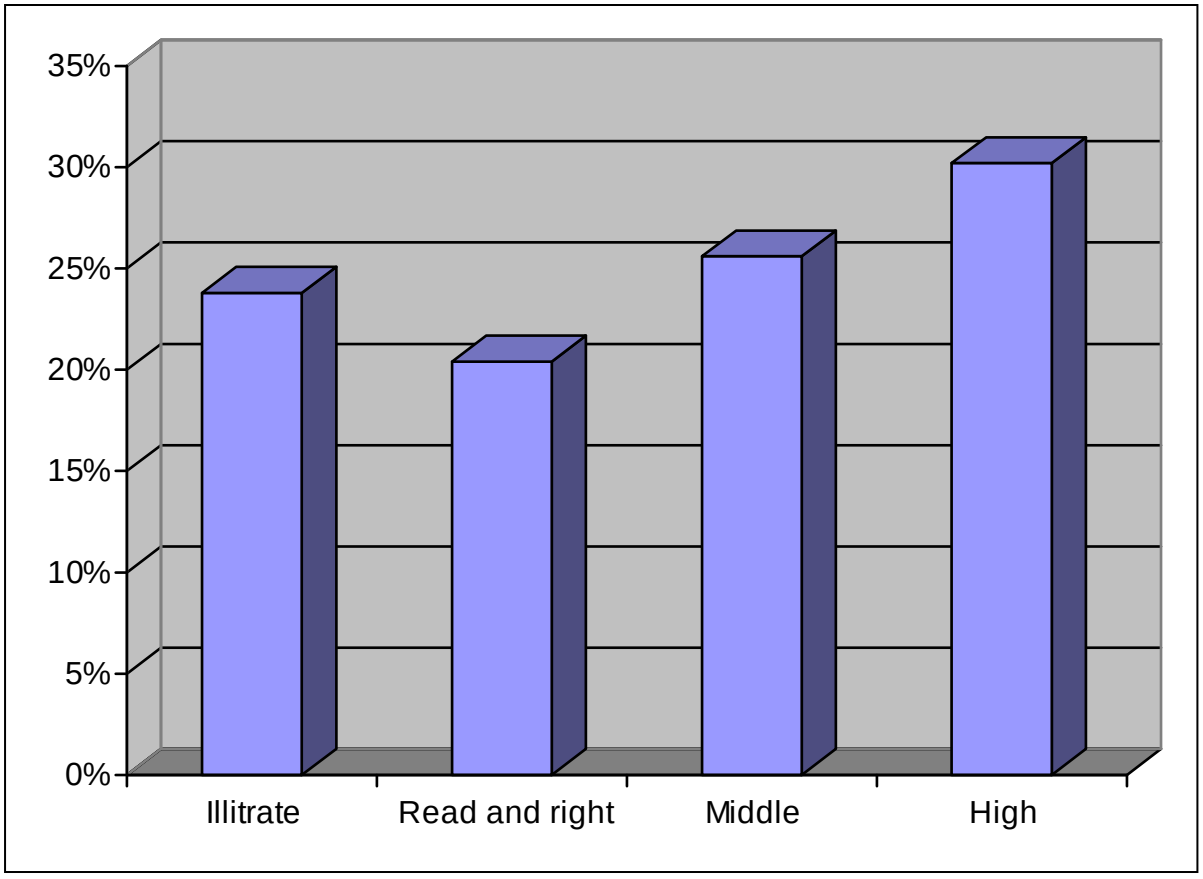

Fig. (18): Educational level of the all the studied patients

Table (10): occupation of the studied patients

	Studied Group	
	N	%
Do not work or retired	97	19.4
Manual workers	179	35.8
Office work	141	28.2
High mental work	83	16.6
Total	500	100

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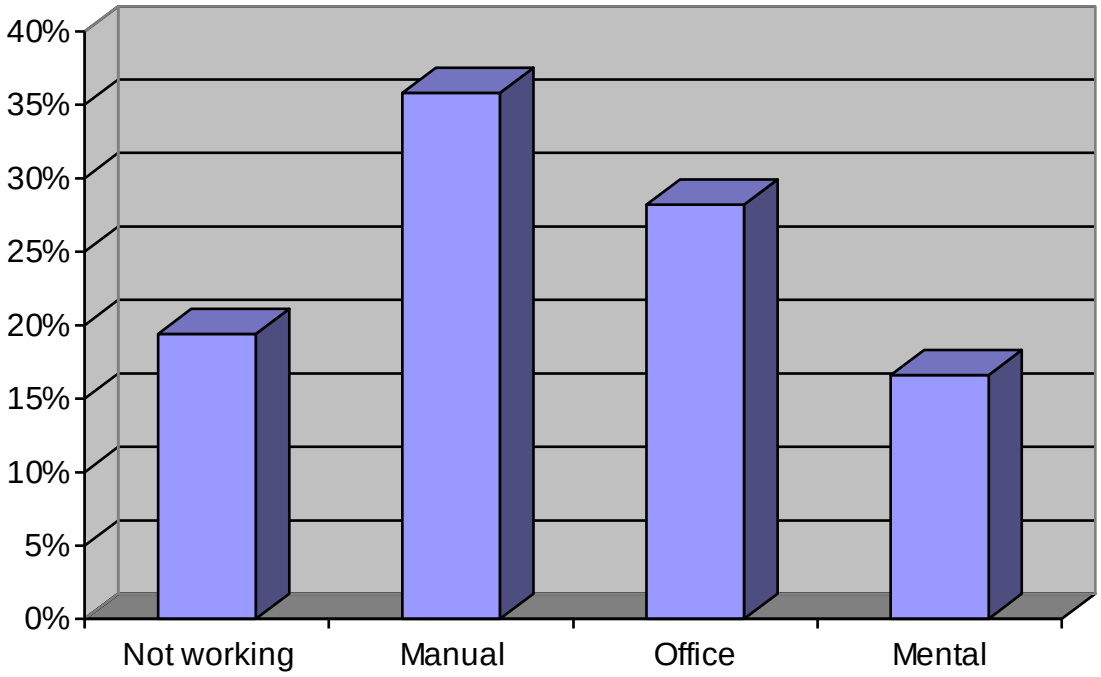

Fig. (19): Occupation of the studied patients

Table (11): Risk factors for CAD among the studied patients

	Studied group (N = 500)	
	N	%
Diabetes	196	39.2
Hypertension	200	40
Smoking	362	72.4
Dyslipidemia	138	27.6
+ve family history	91	18.2
Obesity	211	42.2
Physical inactivity	139	27.8

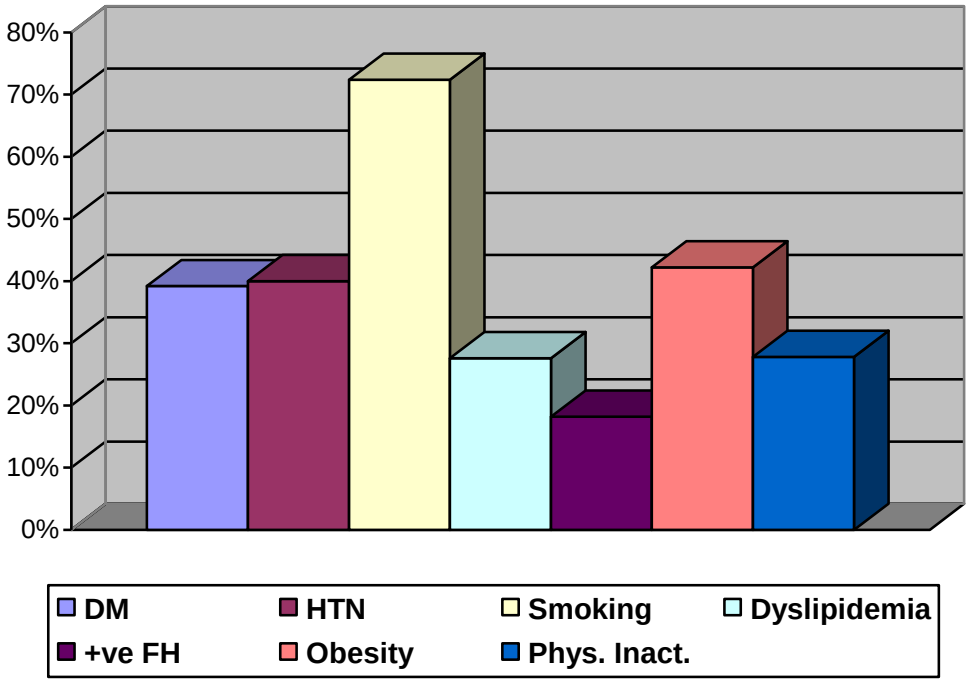

Fig. (20): Risk factors for CAD among the studied patients

Table (12): Distribution of risk factors for CAD among the studied patients

	Studied patients	
	N	%
1 risk factor	39	7.8
2 risk factors	164	32.8
3 risk factors	206	41.2
> 3 risk factors	91	18.2
Total	500	100

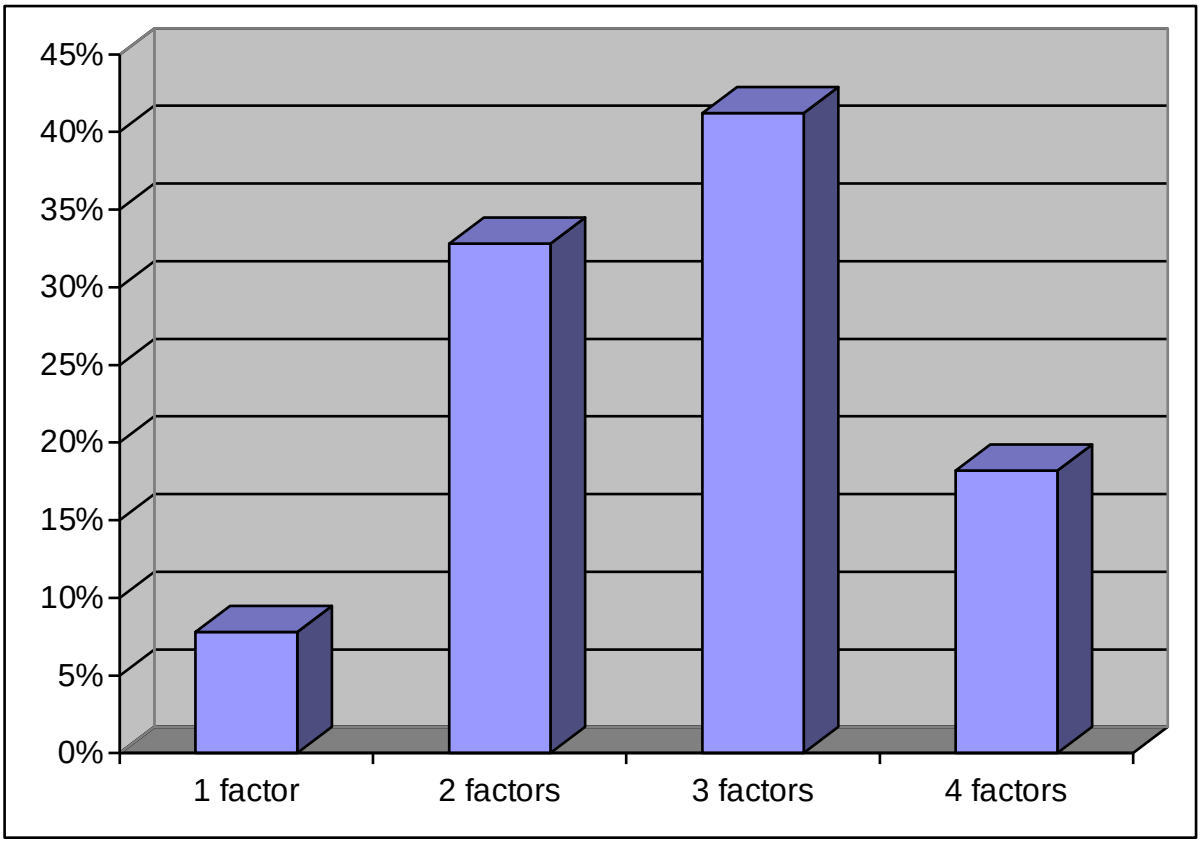

Fig. (21): Distribution of risk factors for CAD among the studied patients

Table (13): Results of laboratory investigations among all the studied patients

	Studied group Mean ± SD
Fasting blood sugar	125 ± 15.7
Post prandial blood sugar	186 ± 12.5
Total cholesterol	207.9 ± 49.8
HDL	34.6 ± 4.1
LDL	115.4 ± 41.3
TG	174.6 ± 22.4
Uric acid	5.3 ± 1.9
GPT	27.3 ± 9.6
GOT	25.6 ± 10.3
Urea	33.6 ± 7.6
Creatinine.	0.92 ± 0.02

Table (14): Control of diabetes among the studied patients

	Studied group	
	N	%
Controlled	112	57.2
Non-controlled	84	42.8
Total	196	100

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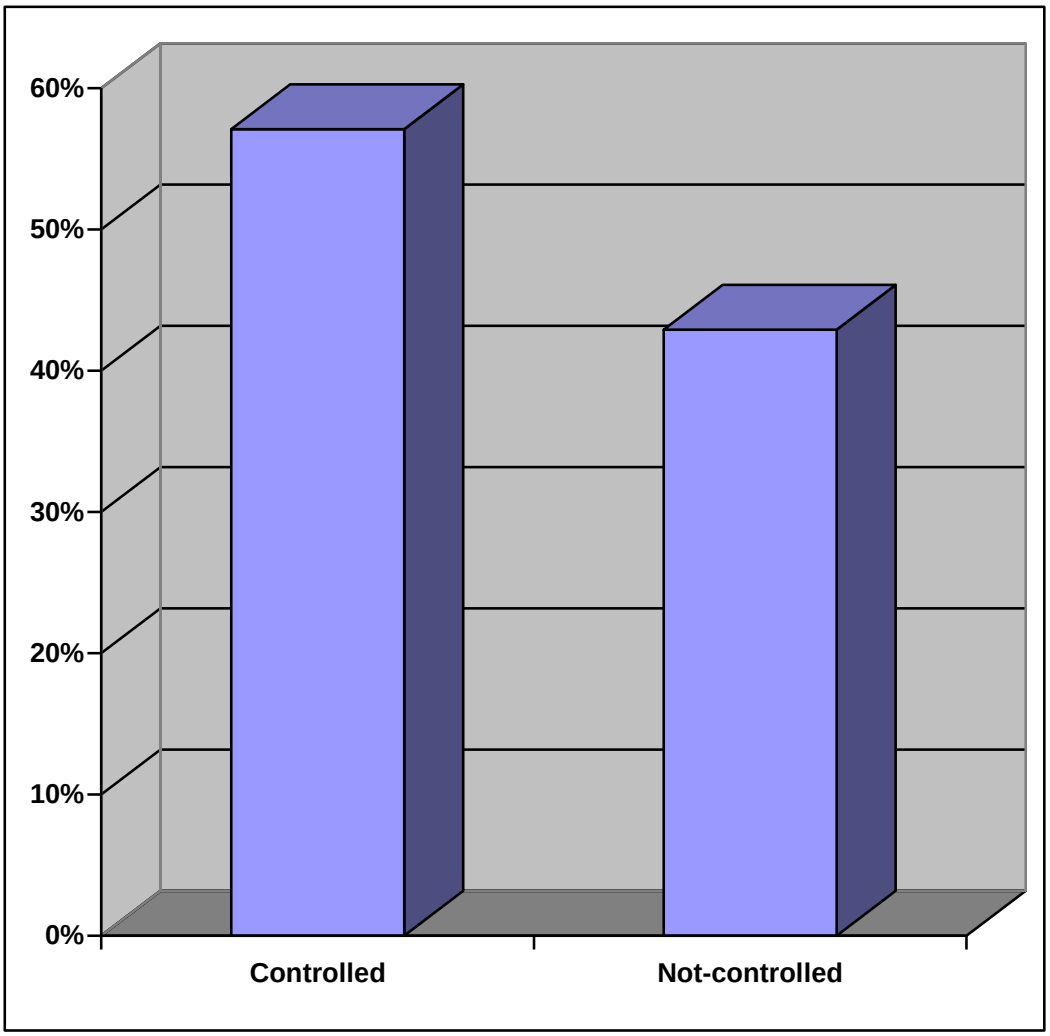

Fig. (22): Control of diabetes among the studied patients

Table (15): Type of diabetes among all the studied patients

	Studied group	
	N	%
Type 1	87	44.8
Type 2	109	53.2
Total	196	100

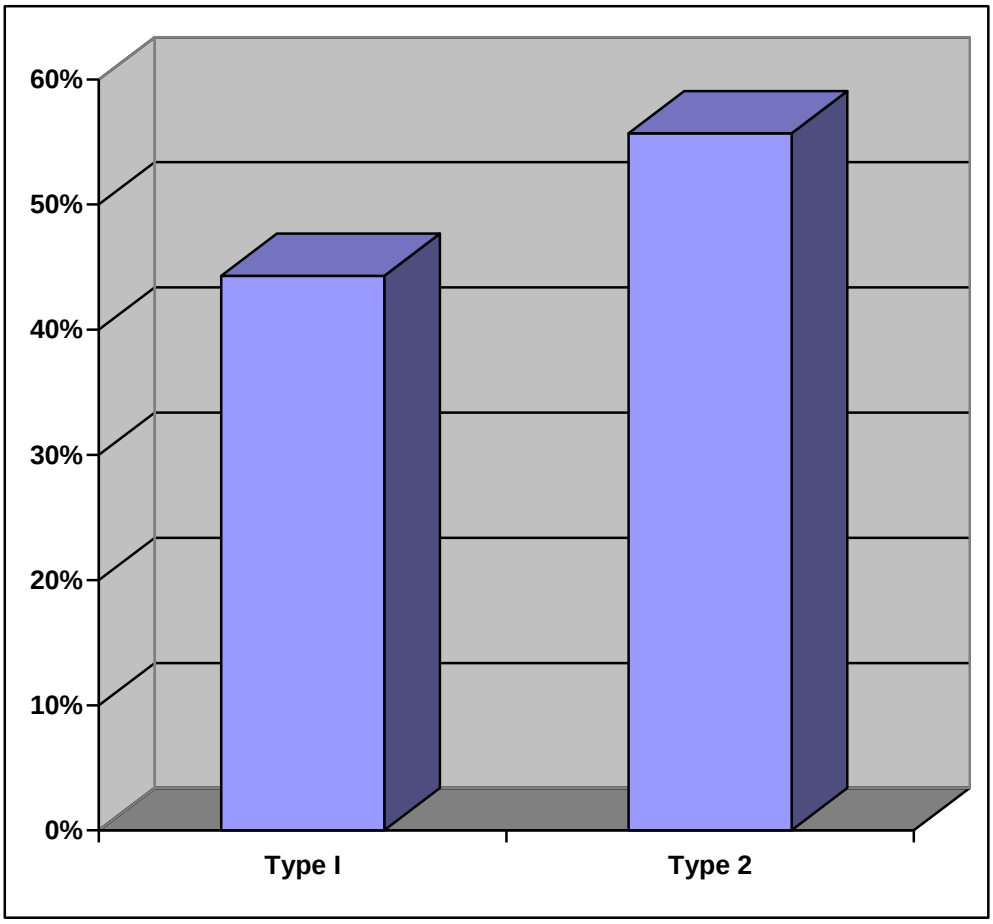

Fig. (23): Type of diabetes among all the studied patients

Table (16): Blood pressure control of the Studied patients

	Studied group	
	N	%
Not controlled	78	39
Controlled	122	61
Total	200	100

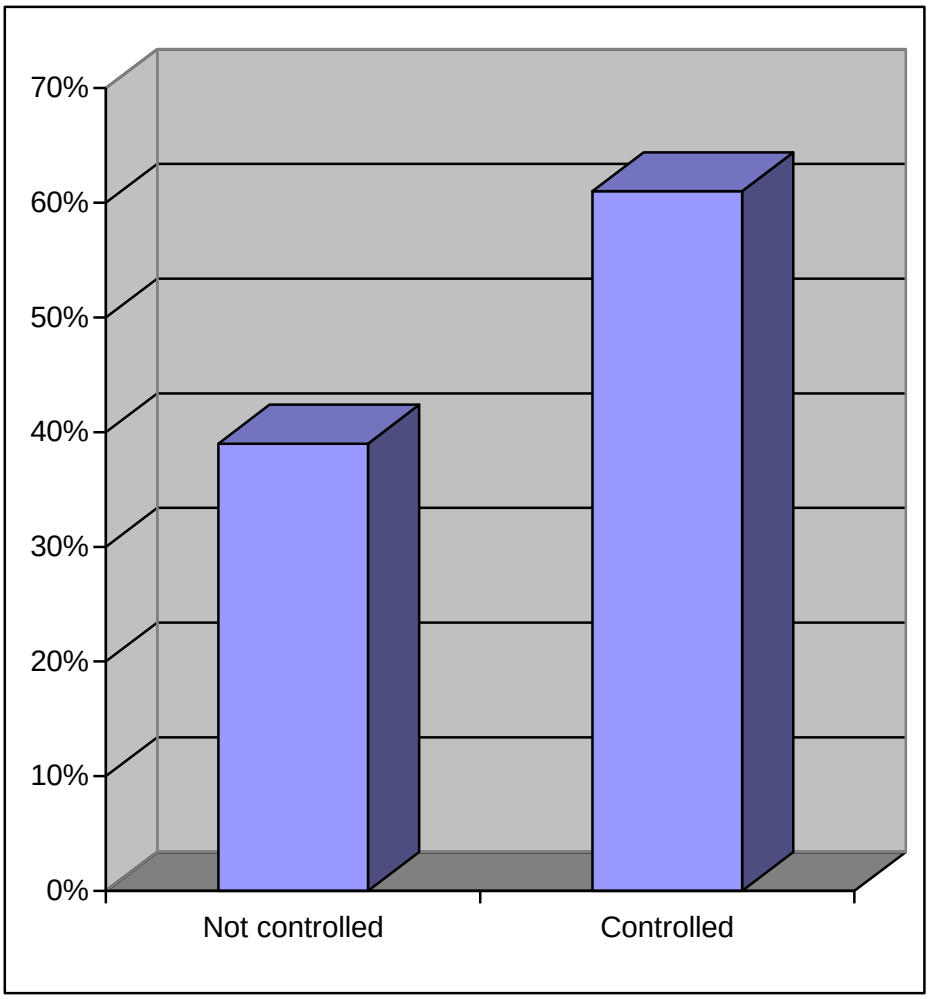

Fig. (24): Blood pressure control of the studied patients

Table (17): Distribution of obesity among all the studied patients

	Studied group	
	N	%
Overweight	68	32.2
Obese	49	23.3
Morbid obesity	94	44.5
Total	211	100

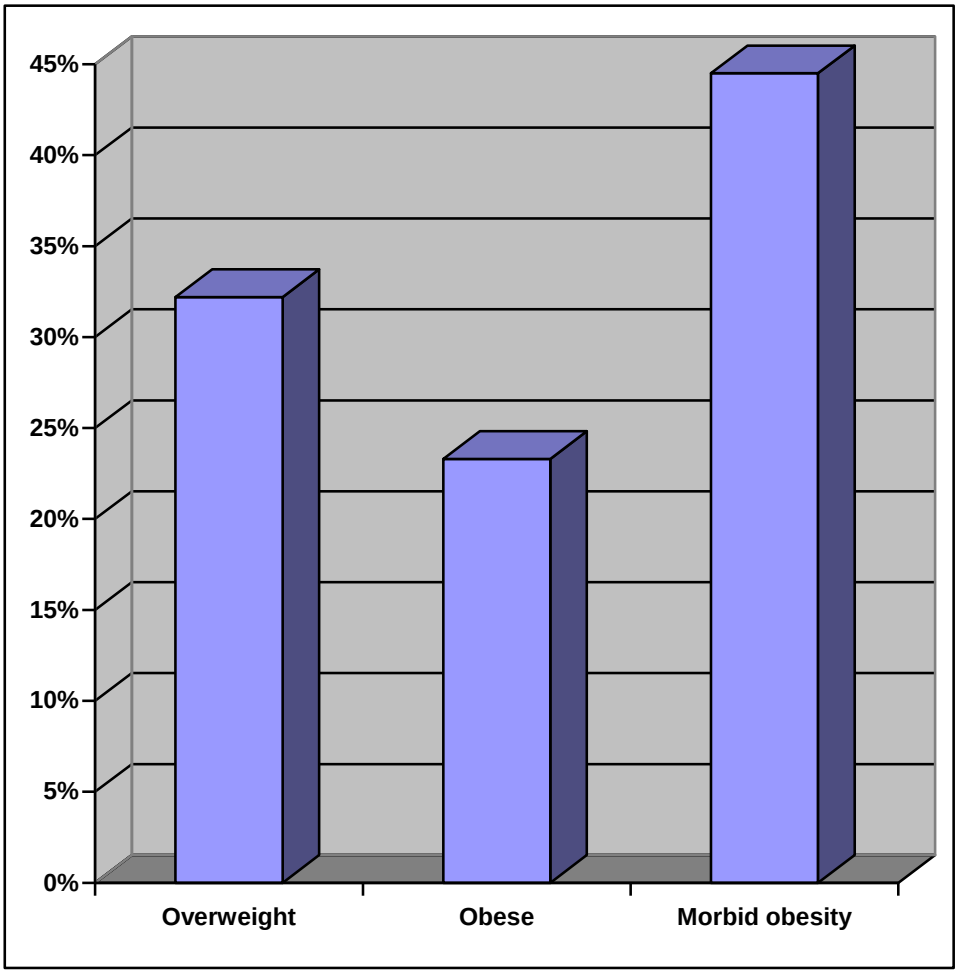

Fig. (25): distribution of obesity among all the studied patients

Table (18): Type of coronary artery disese among all the studied patients

	Studied group	
	N	%
Stable IHD	331	66.2
Unstable angina	93	18.6
Acute MI	76	15.2
Total	500	100

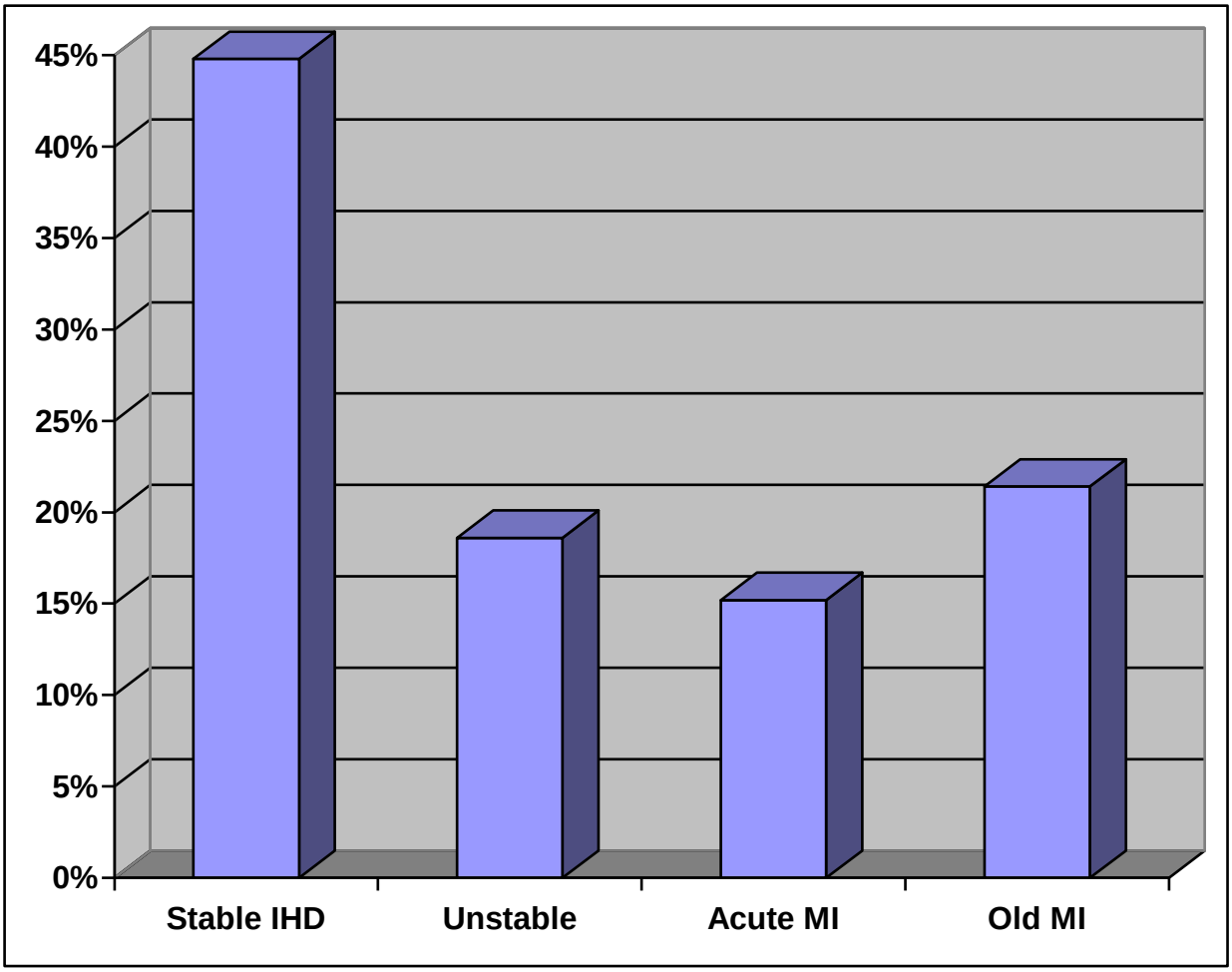

Fig. (26): Type of coronary artery disease among all the studied patients.

Table (19): Results of laboratory investigations among patients with acute and chronic CAD

	Acute CAD Mean ± SD	Chronic CAD Mean ± SD	P value
Fasting blood sugar	119 ± 20.7	100.7 ± 12.5	< 0.05
Post prandial blood sugar	145 ± 28.0	125.4 ± 18.3	< 0.05
Total cholesterol	257.0 ± 34.8	221 ± 17.5	< 0.05
HDL	39.6 ± 5.1	38.4 ± 6.3	> 0.05
LDL	134 ± 32.3	119 ± 20.3	< 0.05
TG	187.6 ± 25.6	142.7 ± 36.8	< 0.05

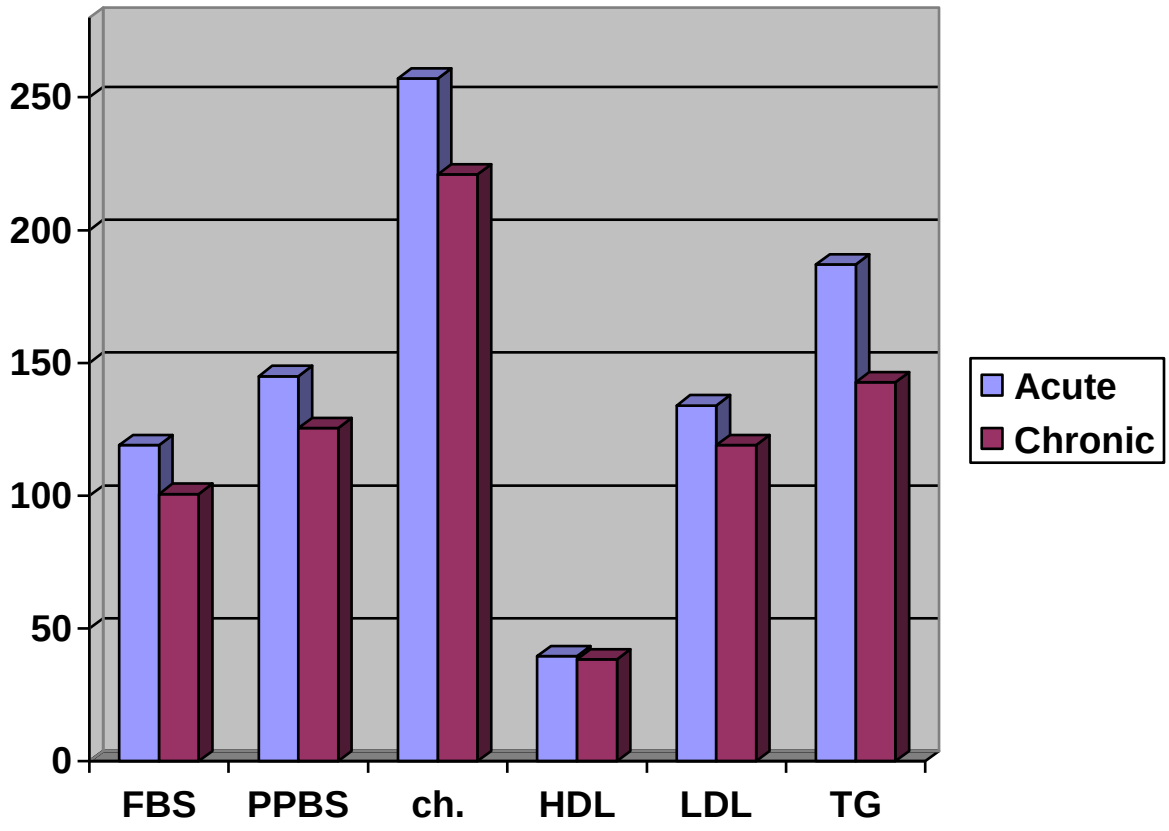

Fig. (27): Blood sugar and lipid profile among patients with acute and chronic IHD

Table (20): distribution of risk factors among patients with acute and chronic coronary artery disease

	Acute (N = 169)		Chronic (N = 331)	
	N	%	N	%
1 risk factor	9	5.3	30	9.1
2 risk factors	60	35.5	104	31.3
3 risk factors	76	42	130	39.3
> 3 risk factors	24	14.2	67	20.2
Total	169	100	331	100

P > 0.05

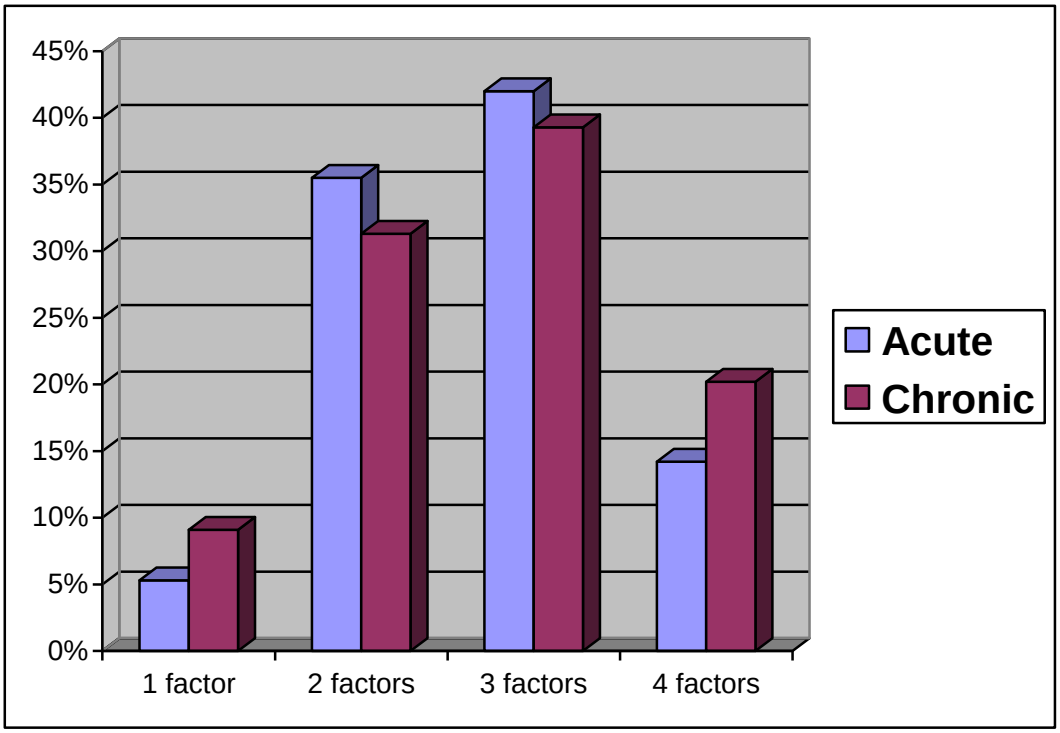

Fig. (28): Distribution of risk factors for CAD among the studied patients

Table (21): Results of laboratory investigations among diabetics and non-diabetics

	Diabetic Mean ± SD	Non-diabetic Mean ± SD	P value
Fasting blood sugar	125 ± 19.7	90.6 ± 10.5	< 0.05
Post prandial blood sugar	156 ± 22.6	115.4 ± 14.3	< 0.05
Total cholesterol	247.0 ± 49.8	219 ± 27.3	< 0.05
HDL	34.6 ± 4.1	37.4 ± 5.2	> 0.05
LDL	115.4 ± 41.3	91.5 ± 20.3	< 0.05
TG	174.6 ± 22.4	112.6 ± 26.7	< 0.05

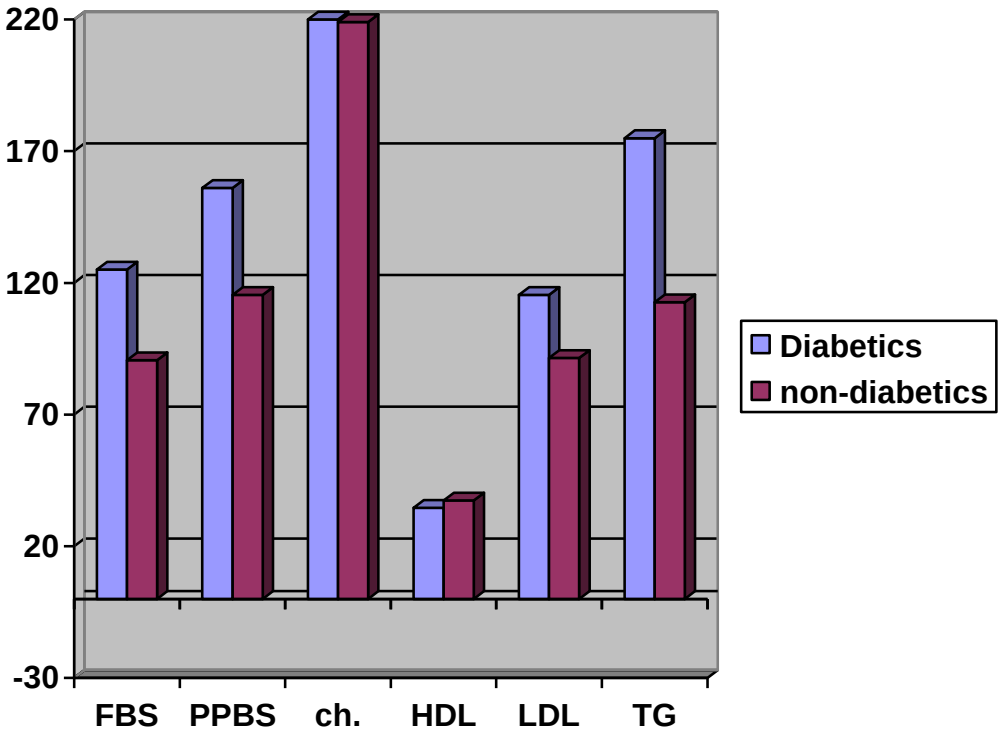

Fig. (29): Blood sugar and lipid profile among Diabetics and non-diabetics

Table (22): Results of laboratory investigations among hypertensives and normotensives

	Hypertensives Mean ± SD	Normotensives Mean ± SD	P value
Fasting blood sugar	119 ± 15	106 ± 12.5	< 0.05
Post prandial blood sugar	143 ± 18.5	125 ± 18.5	< 0.05
Total cholesterol	237.0 ± 41.6	229 ± 29.5	> 0.05
HDL	35.5 ± 4.3	38.3 ± 5.7	> 0.05
LDL	110.0 ± 31.3	105.7 ± 27.4	> 0.05
TG	149 ± 27.2	138 ± 24.6	> 0.05

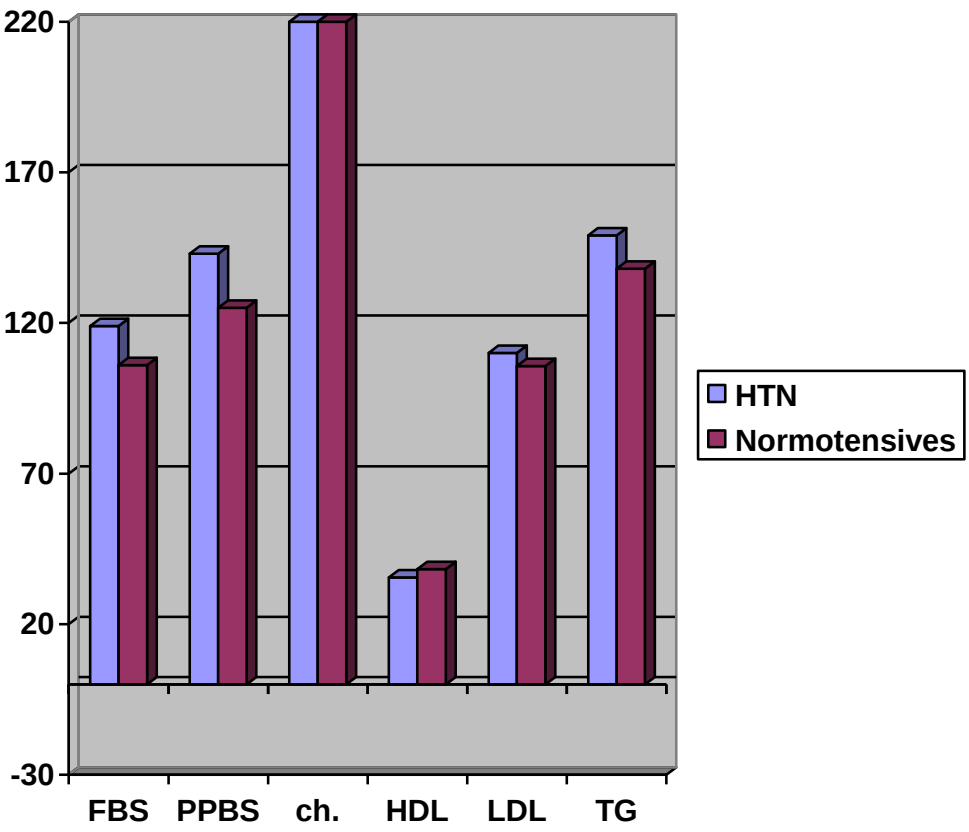

Fig. (30): Blood sugar and lipid profile among hypertensives and normotensives