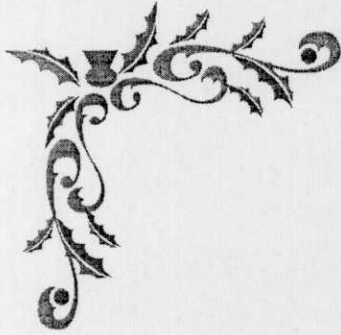
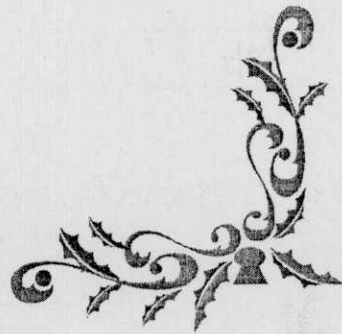




RESULTS



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RESULTS

Table (1): Statistical comparison of the age(in years) among studied groups

	Nonobese (n=33)		Obese (n=22)	
	Control (n=8)	COPD (n=25)	Control (n=7)	COPD (n=15)
Mean	42.42	59.16	44.50	56.73
+SD	7.99	8.1	6.11	6.73
t. test	2.147		2.256	
p. value	0.069		0.051	
Significance	NS		NS	

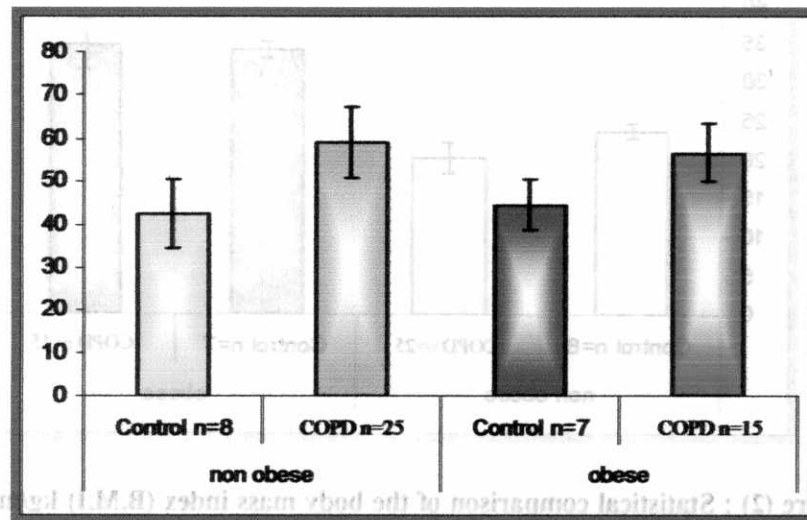


Figure (1) : Statistical comparison of the age(in years) among studied groups

Table (1) and Figure (1) show that there was no statistically significant difference in the age between nonobese, obese COPD and control groups.

Table (2): Statistical comparison of the body mass index (B.M.I) (kg/m²) among studied groups

	Nonobese (n=33)		Obese (n=22)	
	Control (n=8)	COPD (n=25)	Control (n=7)	COPD (n=15)
Mean	23.67	20.2	34.1	34.73
±SD	0.99	2.1	1.19	3.47
t. test	0.865		0.963	
p. value	0.424		0.988	
Significance	NS		NS	

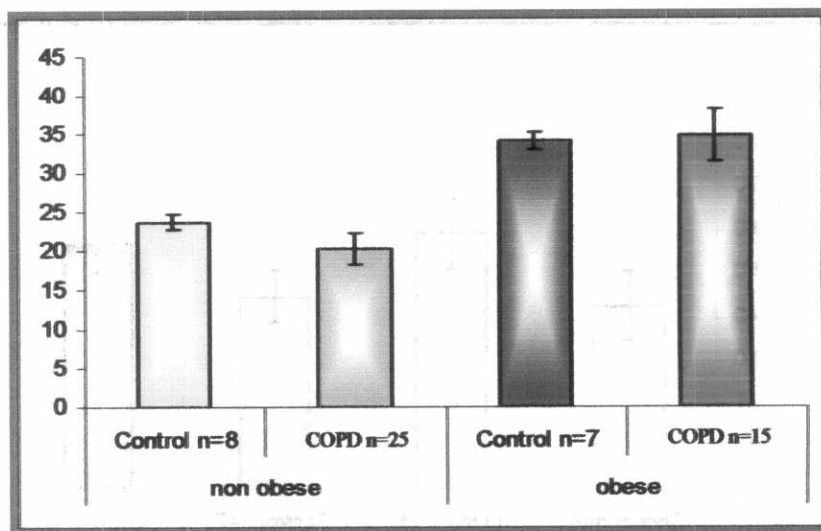


Figure (2) : Statistical comparison of the body mass index (B.M.I) kg/m² among studied groups

Table(2) and figure(2) show that there was no statistically significant difference in (B.M.I) kg/m² between nonobese, obese COPD and nonobese, obese control groups.

Table (3): Statistical comparison of the ventilatory function tests in COPD cases during exacerbation.

		Mean $\pm$ SD	t. test	p. value	Sig
FVC(%pred)	PRE B.D	52.69 $\pm$ 9.77	1.599	0.396	NS
	POST B.D	55.52 $\pm$ 9.62			
FEV1(%pred)	PRE B.D	39.97 $\pm$ 6.35	1.074	0.081	NS
	POST B.D	42.34 $\pm$ 6.84			
FEV1/FVC	PRE B.D	57.95 $\pm$ 8.74	0.886	0.6744	NS
	POST B.D	56.05 $\pm$ 7.52			
FEF25-75(%pred)	PRE B.D	26.11 $\pm$ 10.74	0.421	0.297	NS
	POST B.D	26.57 $\pm$ 9.74			

PRE B.D= prebronchodilator

POST B.D= postbronchodilator

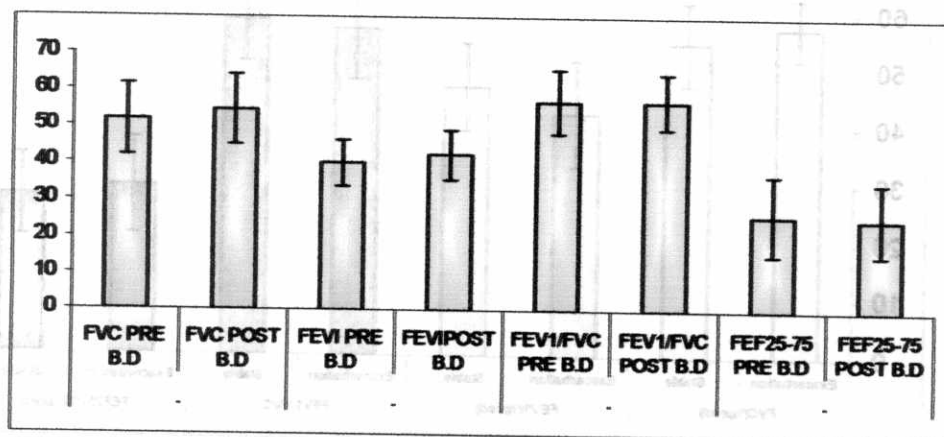
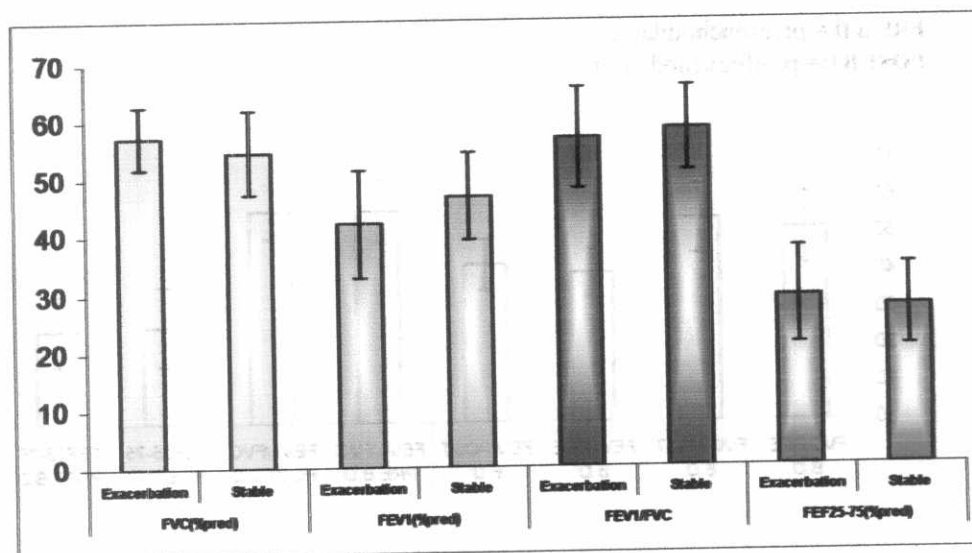


Figure (3): Statistical comparison of the ventilatory function tests in COPD cases during exacerbation.

Table (3) and figure (3) show that there was no statistically significant difference in FVC (%pred), FEV1(%pred), FEV1 / FVC and FEF25-75(%pred) before and after bronchodilators administration.

Table (4): Statistical comparison of the ventilatory function tests among COPD cases during exacerbation and in stable states.

	FVC(%pred)		FEV1(%pred)		FEV1/FVC		FEF25-75(%pred)	
	Exacerbation	Stable	Exacerbation	Stable	Exacerbation	Stable	Exacerbation	Stable
Mean	57.22	54.62	42.20	46.85	56.9	58.52	29.33	27.55
±SD	5.32	7.20	9.36	7.58	8.74	7.31	8.32	7.01
t. test	2.896		2.995		0.288		1.253	
p. value	0.029		0.020		0.555		0.658	
Significance	S		S		NS		NS	

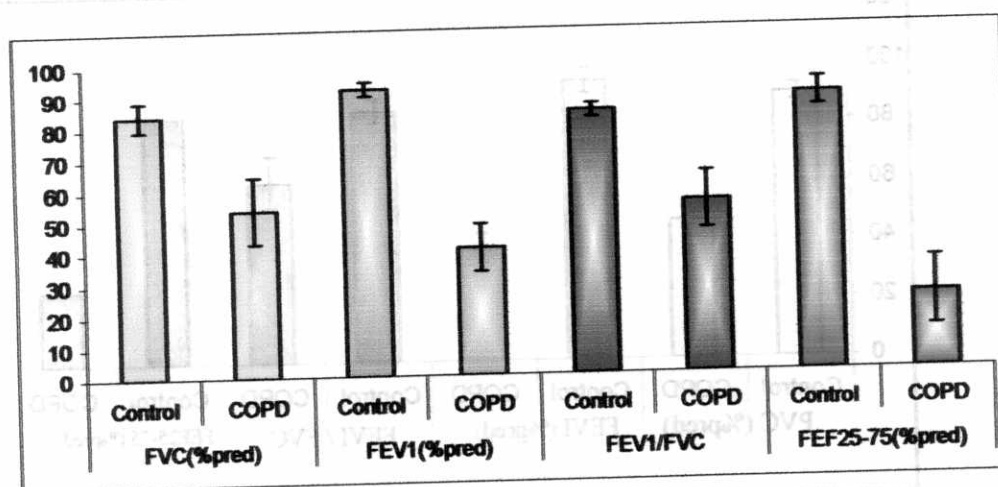


Figure(4): Statistical comparison of the ventilatory function tests among COPD cases during exacerbation and in stable states.

Table(4) and figure(4) show that there was a statistically significant difference in FVC(%pred) and FEV1(%pred) during exacerbation and stable COPD and non significant difference in FEV1/FVC and FEF25-75(%pred).

Table (5): Statistical comparison of the ventilatory function tests among nonobese COPD cases during exacerbation in comparison with the control group.

		Mean±SD	t. test	p.value	Sig
FVC(%pred)	Control	84±4.69	11.258	0.001	HS
	COPD	53.64±10.57			
FEV1(%pred)	Control	92.2±2.36	9.325	0.001	HS
	COPD	40.8±7.7			
FEV1/FVC	Control	84.4±2.22	15.325	0.001	HS
	COPD	55±9.05			
FEF25-75(%pred)	Control	89.28±4.46	12.325	0.001	HS
	COPD	27.24±10.90			

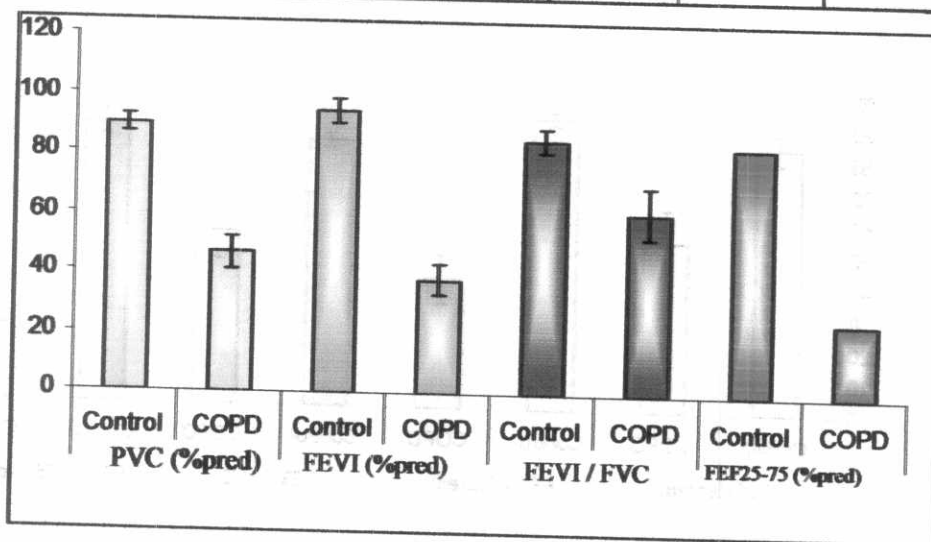


Figure(5): Statistical comparison of the ventilatory function tests among nonobese COPD cases during exacerbation in comparison with the control group.

Table (5) and figure (5) show that there was highly statistically significant difference in FVC(%pred), FEV1(%pred), FEV1/FVC and FEF25-75(%pred) among nonobese COPD cases during exacerbation in comparison with control groups.

Table (6): Statistical comparison of the ventilatory function tests among obese COPD cases during exacerbation in comparison with the control group.

		Mean $\pm$ SD	t. test	p.value	Sig
FVC(%pred)	Control	89.83 $\pm$ 7.62	8.362	0.003	S
	COPD	46.33 $\pm$ 8.92			
FEV1(%pred)	Control	94.3 $\pm$ 2.97	21.574	0.001	HS
	COPD	37.8 $\pm$ 5.59			
FEV1/FVC	Control	85 $\pm$ 4.40	5.693	0.003	S
	COPD	61 $\pm$ 5.01			
FEF25-75(%pred)	Control	83.28 $\pm$ 3.72	15.202	0.001	HS
	COPD	25 $\pm$ 8.75			



Figure(6) : Statistical comparison of the ventilatory function tests among obese COPD cases during exacerbation in comparison with the control group.

Table(6) and figure(6) show that there was a statistically significant difference in FVC(%pred), FEV1/FVC and highly significant difference FEV1(%pred), FEF25-75(%pred) among obese COPD cases during exacerbation in comparison with control groups.

Table (7): Statistical comparison of the ventilatory function tests among nonobese stable COPD cases in comparison with the control groups.

		Mean $\pm$ SD	t. test	p.value	Sig
FVC(%pred)	Control	84 $\pm$ 3.53	6.325	0.003	S
	COPD	56.80 $\pm$ 10.11			
FEV1(%pred)	Control	94.3 $\pm$ 2.9	14.639	0.001	HS
	COPD	46.68 $\pm$ 8.07			
FEV1/FVC	Control	84.42 $\pm$ 2.22	7.963	0.003	S
	COPD	56.04 $\pm$ 8.86			
FEF25-75(%pred)	Control	89.28 $\pm$ 4.46	12.020	0.001	HS
	COPD	29.25 $\pm$ 10.30			

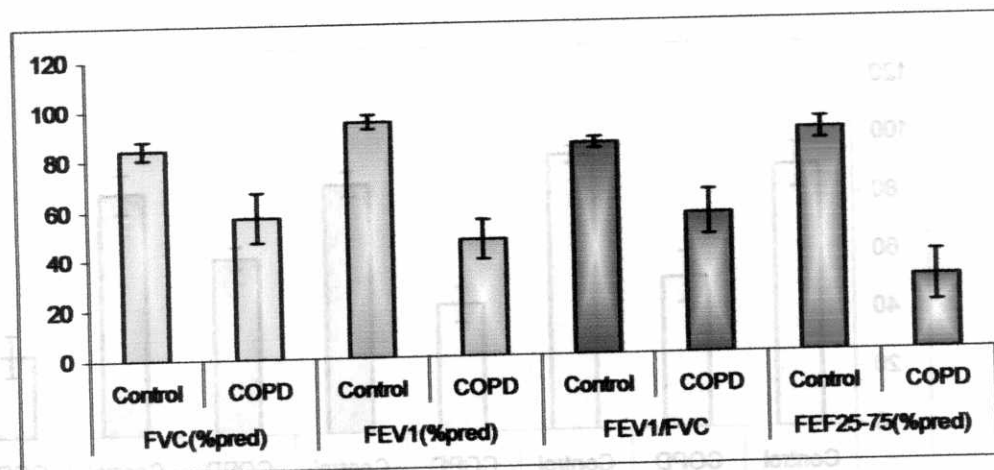
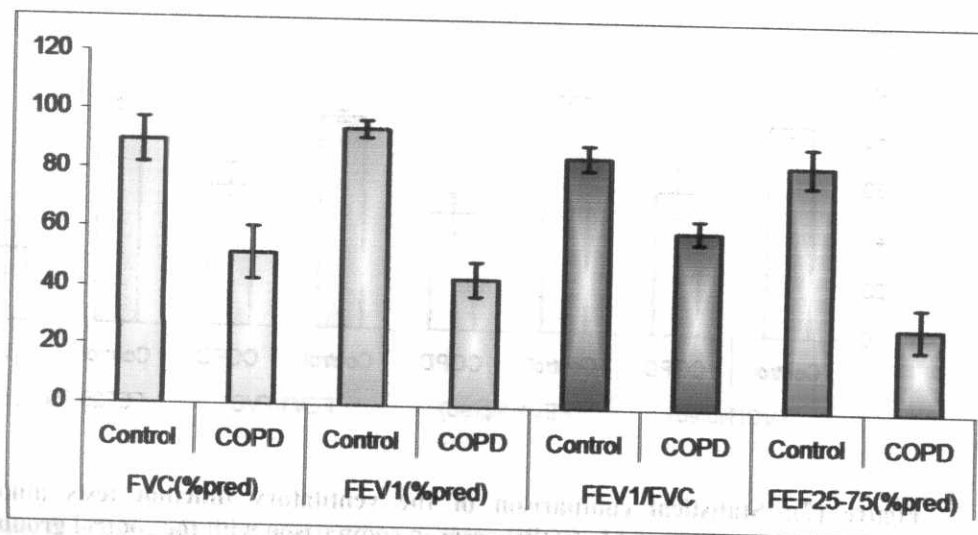


Figure (7): Statistical comparison of the ventilatory function tests among nonobese stable COPD cases in comparison with the control groups.

Table (7) and figure (7) show that there was a significant difference in FVC(%pred), FEV1/FVC and highly significant difference FEV1(%pred), FEF25-75(%pred) among nonobese stable COPD cases in comparison with control groups.

Table (8): Statistical comparison of the ventilatory function tests among obese stable COPD cases in comparison with the control groups.

		Mean±SD	t. test	p.value	Sig
FVC(%pred)	Control	89.83±7.62	8.325	0.018	S
	COPD	51.66±8.79			
FEV1(%pred)	Control	94.3±2.9	3.580	0.002	S
	COPD	43.53±5.86			
FEV1/FVC	Control	85.37±4.40	4.539	0.014	S
	COPD	60.33±3.97			
FEF25-75(%pred)	Control	83.28±6.72	14.232	0.002	S
	COPD	28.40±7.24			



Figure(8): Statistical comparison of the ventilatory function tests among obese stable COPD cases in comparison with the control groups.

Table(8) and figure(8) show that there was a statistically significant difference in FVC(%pred), FEV1(%pred), FEV1/FVC and FEF25-75(%pred) among obese stable COPD cases in comparison with control groups.

Table (9): Statistical comparison of serum adiponectin (mcg/ml) between nonobese, obese COPD cases during exacerbation in comparison with the control groups.

	Nonobese (n=33)		Obese (n=22)	
	Control (n=8)	COPD (n=25)	Control (n=7)	COPD (n=15)
Mean	5.51	19.4	1.37	5.38
±SD	1.51	1.58	0.91	1.15
t. test	13.895		3.253	
p. value	0.001		0.050	
Significance	HS		S	

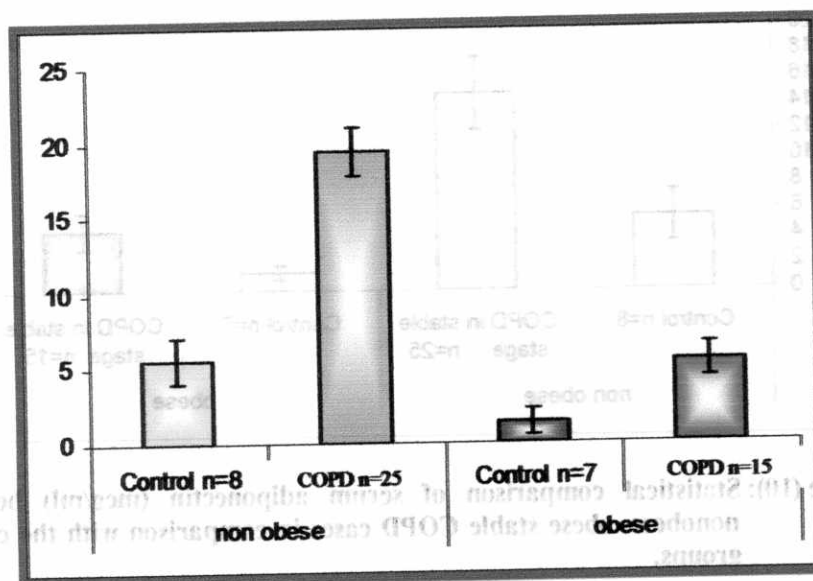


Figure (9): Statistical comparison of serum adiponectin (mcg/ml) between nonobese, obese COPD cases during exacerbation in comparison with the control groups.

Table(9) and figure(9) show that there was a statistically highly significant difference in serum adiponectin (mcg/ml) between nonobese COPD cases and nonobese control during exacerbation and significant difference between obese COPD and obese control.

Table (10): Statistical comparison of serum adiponectin (mcg/ml) between nonobese, obese stable COPD cases in comparison with the control groups.

	Non obese (n=33)		Obese (n=22)	
	Control (n=8)	COPD (n=25)	Control (n=7)	COPD (n=15)
Mean	5.51	14.8	1.37	4.52
+SD	1.99	2.76	0.53	1.36
t. test	5.258		4.523	
p. value	0.004		0.019	
Significance	S		S	

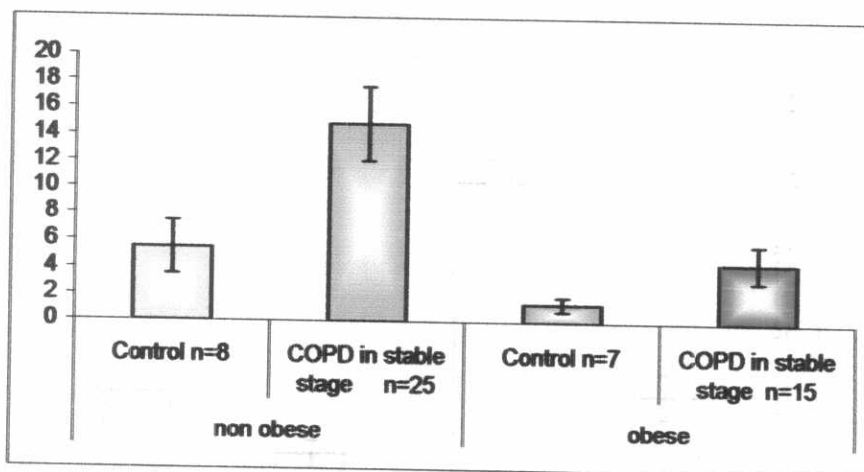


Figure (10): Statistical comparison of serum adiponectin (mcg/ml) between nonobese, obese stable COPD cases in comparison with the control groups.

Table (10) and figure (10) show that there was a significant difference in serum adiponectin (mcg/ml) between nonobese, obese stable COPD cases in comparison with the control groups

Table (11): Statistical comparison of serum adiponectin (mcg/ml) between nonobese, obese COPD cases during exacerbation and during stable states.

	Non obese (n=25)		Obese (n=15)	
	exacerbation	stable	exacerbation	stable
Mean	19.4	14.8	5.38	4.52
±SD	1.58	2.76	1.97	1.91
t. test	2.856		1.241	
p. value	0.049		0.253	
Significance	S		NS	

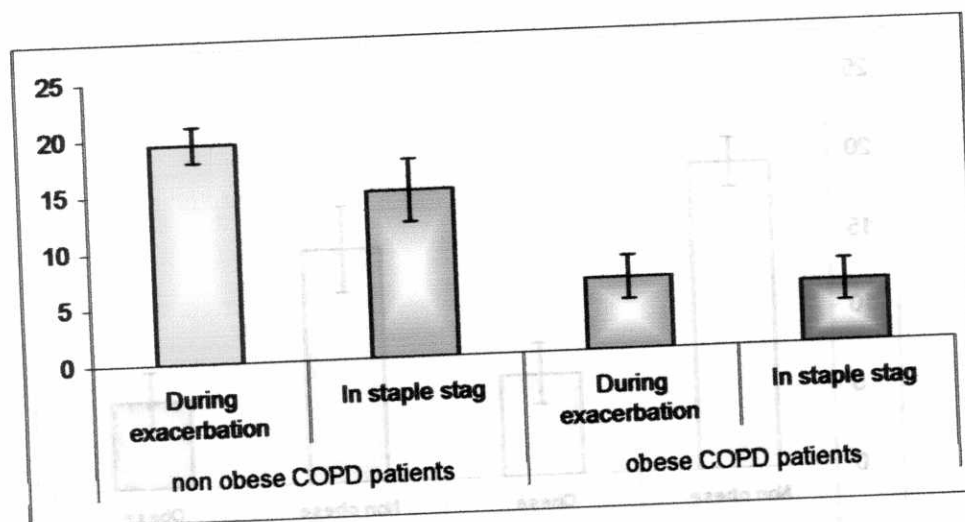


Figure (11): Statistical comparison of serum adiponectin (mcg/ml) between nonobese, obese COPD cases during exacerbation and during stable states.

Table (11) and figure (11) show that there was a statistically significant difference in serum adiponectin (mcg/ml) between nonobese COPD cases during exacerbation and during stable states and no significant difference between obese COPD cases during exacerbation and during stable states.

Table (12): Statistical comparison of serum adiponectin (mcg/ml) between nonobese and obese COPD cases during exacerbation and during stable states.

	COPD (exacerbation)		COPD (stable)	
	Non obese (N=25)	Obese (N=15)	Non obese (N=25)	Obese (N=15)
Mean	19.4	5.38	14.8	4.52
±SD	1.58	1.97	2.76	1.91
t. test	6.325		5.856	
p. value	0.001		0.001	
Significance	HS		HS	

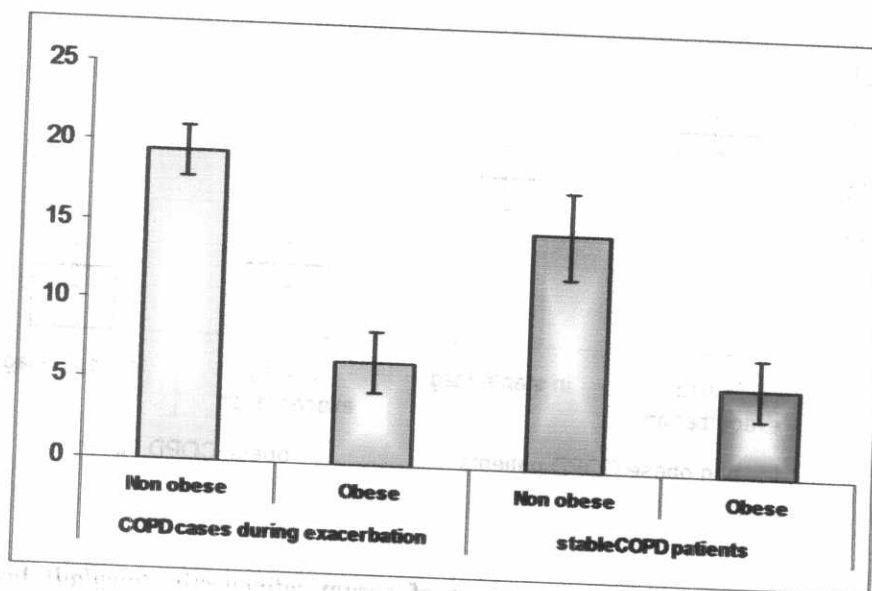


Figure (12): Statistical comparison of serum adiponectin (mcg/ml) between nonobese and obese COPD cases during exacerbation and during stable states.

Table (12) and figure (12) show that there was a statistically highly significant difference in serum adiponectin (mcg/ml) between nonobese COPD cases and obese COPD cases during exacerbation and during stable states.

Table (13): Correlation between changes in serum adiponectin(mcg/ml) and changes in FVC (%pred) in nonobese and obese COPD cases from exacerbation to stable states.

	r	p	Sig
Non obese	0.241	0.256	NS
Obese	0.198	0.325	NS

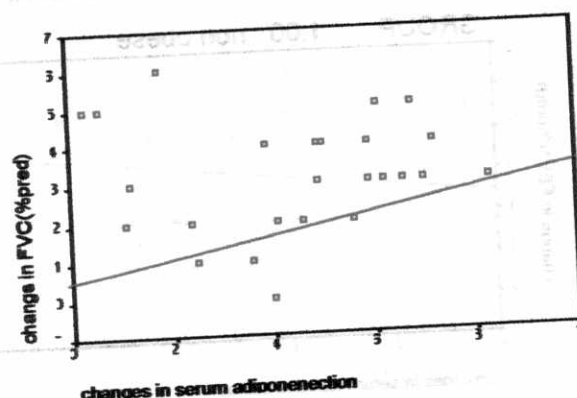


Figure (13): Correlation between changes in serum adiponectin(mcg/ml) and changes in FVC (%pred) in nonobese COPD cases from exacerbation to stable states.

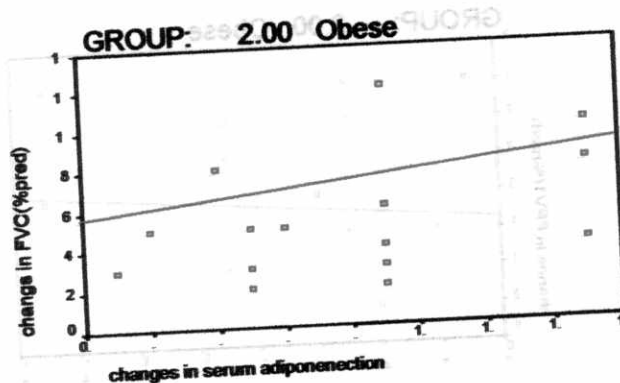


Figure (14): Correlation between changes in serum adiponectin(mcg/ml) and changes in FVC (%pred) in obese COPD cases from exacerbation to stable states.

Table (13), figure (13) and figure (14) show that there was no significant correlation between changes in serum adiponectin (mcg/ml) and changes in FVC (%pred) in nonobese and obese COPD cases from exacerbation to stable states.

Table (14): Correlation between changes in serum adiponectin(mcg/ml) and changes in FEV1(%pred) in nonobese and obese COPD cases from exacerbation to stable states.

	r	p	Sig
Non obese	0.241	0.256	NS
Obese	-0.282	0.069	NS

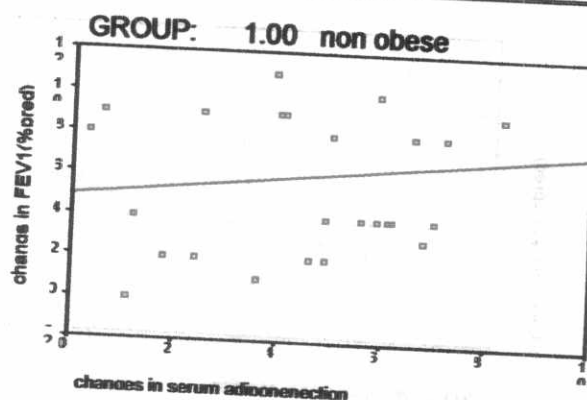


Figure (15): Correlation between changes in serum adiponectin(mcg/ml) and changes in FEV1(%pred) in nonobese COPD cases from exacerbation to stable states.

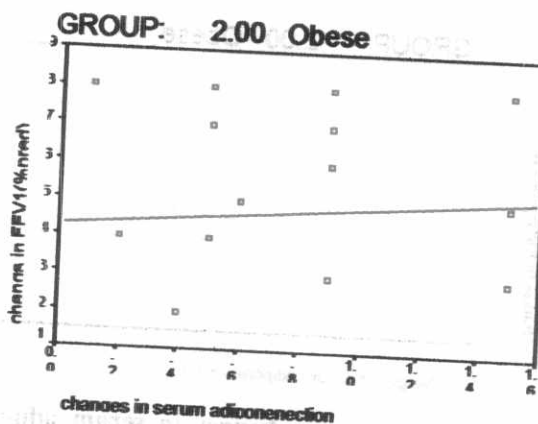


Figure (16): Correlation between changes in serum adiponectin(mcg/ml) and changes in FEV1(%pred) in obese COPD cases from exacerbation to stable states.

Table(14) ,figure(15) and figure(16) show that there was no significant correlation between changes in serum adiponectin (mcg/ml) and changes in FEV1(%pred) in nonobese and obese COPD cases from exacerbation to stable states.

Results

Table (15): Correlation between changes in serum adiponectin(mcg/ml) and changes in FEV1/FVC in nonobese and obese COPD cases from exacerbation to stable states.

	r	p	Sig
Non obese	-0.230	0.523	NS
Obese	-0.099	0.695	NS

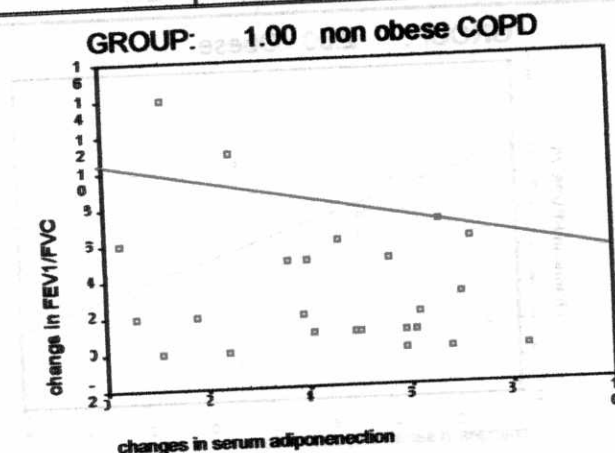


Figure (17): Correlation between changes in serum adiponectin(mcg/ml) and changes in FEV1/FVC in nonobese COPD cases from exacerbation to stable states.

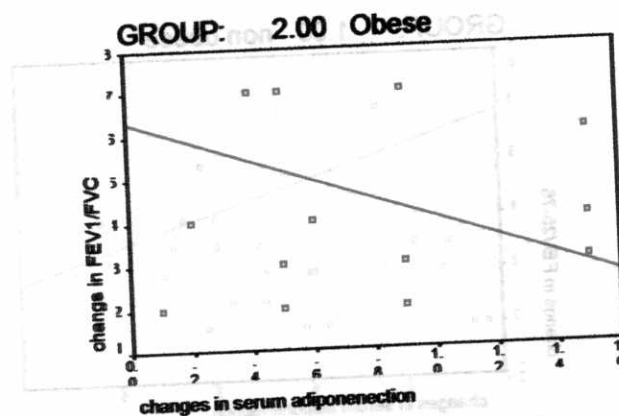


Figure (18): Correlation between changes in serum adiponectin(mcg/ml) and changes in FEV1/FVC in obese COPD cases from exacerbation to stable states.

Table(15), figure(17) and figure (18) show that there was no significant correlation between changes in serum adiponectin (mcg/ml) and changes in FEV1/FVC in nonobese and obese COPD cases from exacerbation to stable states.

Table (16): Correlation between changes in serum adiponectin(mcg/ml) and changes in FEF25-75 (%pred) in nonobese and obese COPD cases from exacerbation to stable states.

	r	p	Sig
Non obese	-0.241	0.085	NS
Obese	0.241	0.285	NS

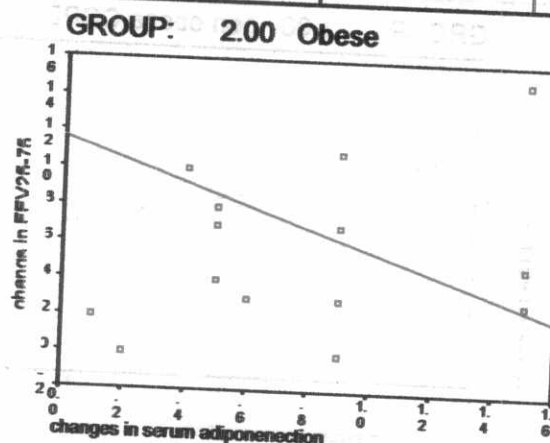


Figure (19): Correlation between changes in serum adiponectin(mcg/ml) and changes in FEF25-75 (%pred) in obese COPD cases from exacerbation to stable states.

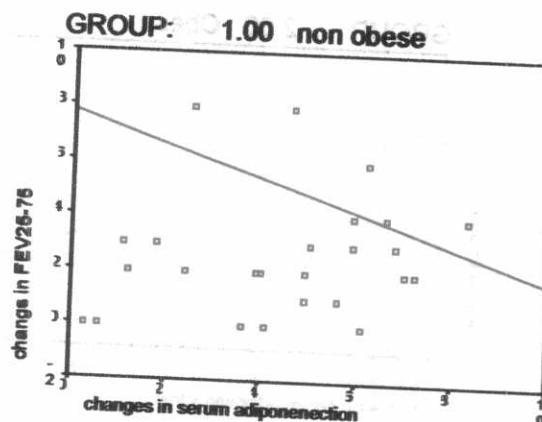
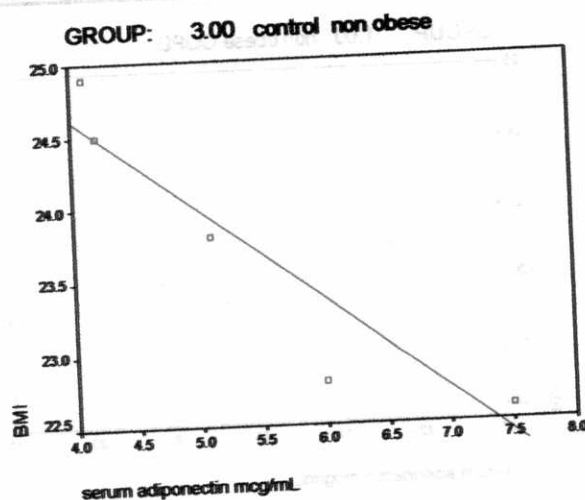


Figure (20) Correlation between changes in serum adiponectin(mcg/ml) and changes in FEF25-75 (%pred) in nonobese COPD cases from exacerbation to stable states.

Table(16), figure(19) and figure (20) show that there was no significant correlation between changes in serum adiponectin (mcg/ml) and changes in FEF25-75 (%pred) in nonobese and obese COPD cases from exacerbation to stable states.

Table (17): Correlation between serum adiponectin(mcg/ml) and body mass index (B.M.I) kg/m^2 in non obese and obese control groups

	r	p	Sig
Nonobese	-0.352	0.049	S
Obese	-0.253	0.044	S



Figure(21):Correlation between serum adiponectin(mcg/ml) and body mass index (B.M.I) kg/m^2 in non obese control groups

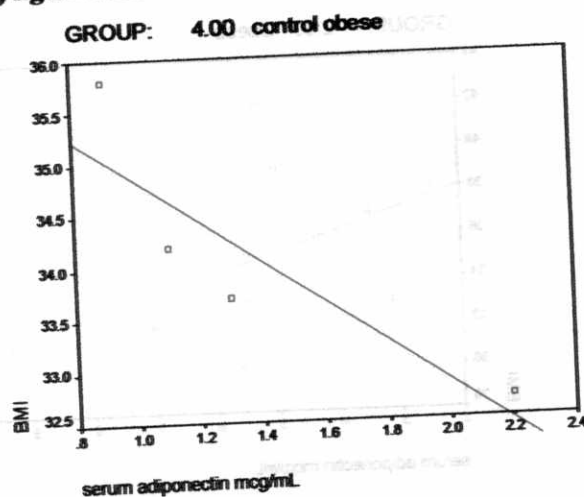


Figure (22): Correlation between serum adiponectin(mcg/ml) and body mass index (B.M.I) kg/m^2 in obese control groups

Table(17) ,figure(21) and figure(22) show that there was significant -ve correlation between changes serum adiponectin (mcg/ml) and changes in body mass index (B.M.I) kg/m^2 in nonobese and obese control groups.

Table (18): Correlation between serum adiponectin(mcg/ml) and body mass index (B.M.I) kg/m^2 in nonobese and obese COPD cases during exacerbation.

	r	p	Sig
Nonobese	-0.563	0.007	S
Obese	-0.475	0.003	S

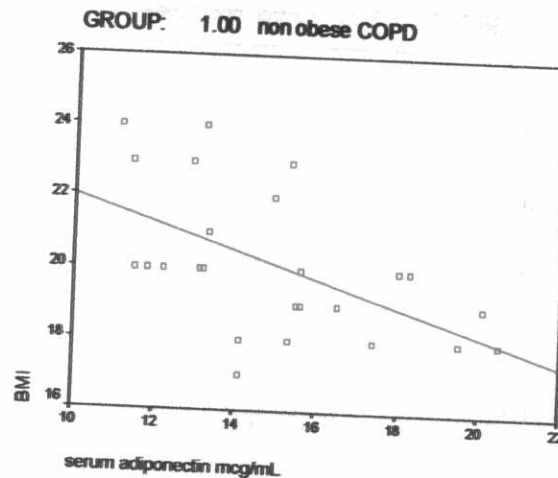


Figure (23): Correlation between serum adiponectin(mcg/ml) and body mass index (B.M.I) kg/m^2 in nonobese COPD cases during exacerbation

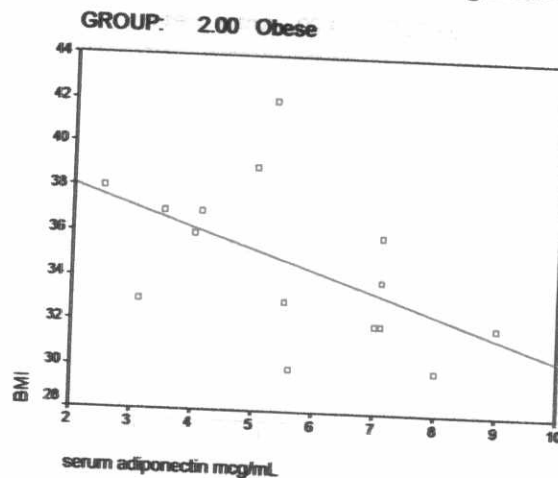


Figure (24): Correlation between serum adiponectin(mcg/ml) and body mass index (B.M.I) kg/m^2 in obese COPD cases during exacerbation

Table(18) ,figure(23) and figure(24) show that there was significant -ve correlation between changes serum adiponectin (mcg/ml) and changes in body mass index (B.M.I) kg/m^2 in nonobese and obese COPD cases during exacerbation.

Table (19): Correlation between serum adiponectin(mcg/ml) and body mass index (B.M.I) kg/m^2 in nonobese and obese stable COPD cases.

	r	p	Sig
Nonobese	-0.586	0.030	S
Obese	-0.428	0.038	S

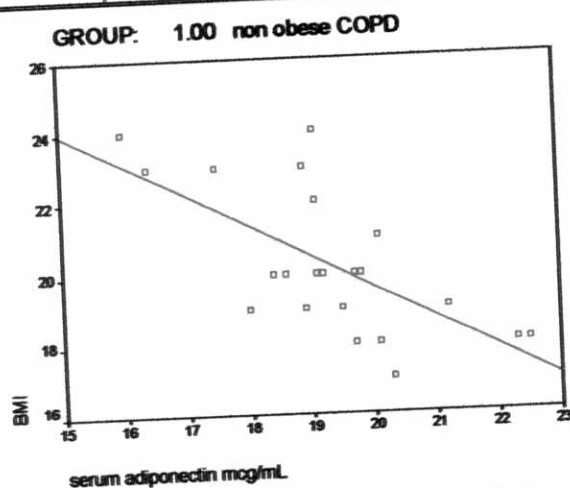


Figure (25): Correlation between serum adiponectin(mcg/ml) and body mass index (B.M.I) kg/m^2 in nonobese stable COPD cases.

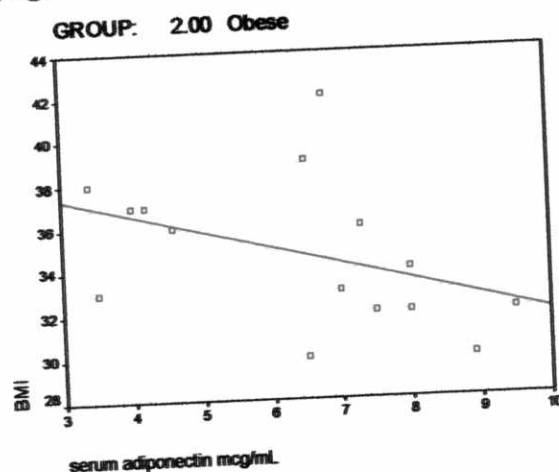


Figure (26): Correlation between serum adiponectin(mcg/ml) and body mass index (B.M.I) kg/m^2 in obese stable COPD cases.

Table (19), figure (25) and figure (26) show that there was significant -ve correlation between changes serum adiponectin (mcg/ml) and changes in body mass index (B.M.I) kg/m^2 in nonobese and obese COPD cases.