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RESULTS

This work was conducted on 100 patients with chronic HCV infection . 50 of them(steatotic group) showing hepatic steatosis in the histopathological examination of the liver biopsy, all of them are of mild steatosis, the other 50(non steatotic group) showing no steatosis on liver biopsy.

Table(8)shows comparison between both studied groups as regard Age .this table shows that no statistically significant difference could be detected between both studied groups as regard age.

Table(9)shows comparison between studied groups as regard Gender. this table shows that no statistically significant difference could be detected between both studied groups as regard gender.

Table(10) groups shows comparison between studied as regard body mass index(BMI). this table shows that no statistically significant difference between both studied groups as regard BMI.

Table(11)shows comparison between both studied groups as regard fasting blood sugar(FBS).this table shows that no statistically difference could be detected between both studied groups as regard FBS.

Table (12) shows comparison between both studied groups as regard prothrombine time(P.T). This table shows that no stastically significant difference could be detected between both studied groups as regard P.T.

Table (13) shows Comparison between both studied groups as regard serum albumin. This table shows that no statistically significant difference could be detected between both studied groups as regard serum albumin.

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Table(14) shows comparison between both studied groups as regard serum AST.this table shows that no statistically significant difference could be detected between both studied groups as regard AST.

Table(15) shows comparison between both studied groups as regard ALT.this table shows that no statistically significant difference could be detected between both studied groups as regard ALT.

Table (16) shows Comparison between both studied groups as regard serum bilirubin.This table shows that no statistically significant difference could be detected between both studied groups as regard serum bilirubin.

Table (17) Shows comparison between both studied groups as regard inflammatory score(I.S).this table shows that the steatotic cases had higher I.S compared to non steatotic cases with statistically significant difference.

Table (18) shows comparison between both studied groups as regard fibrotic score. This table shows that steatotic group had a higher fibrosis score compared to non steatotic group with statistically significant difference.

Table(19) shows comparison between both studied groups as regard hemoglobin(Hb).this table shows that no statistically significant difference could be detected between both studied groups as regard Hb.

Table(20) shows comparison between both studied groups as regard white blood cells(WBC).this table shows that no statistically significant difference could be detected between both studied groups as regard WBC.

Table(21) shows comparison between both studied groups as regard platelets.this table shows that no statistically significant difference could be detected between both studied groups as regard platelets.

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Table(22)shows PCR at week zero(before treatment).this table shows no statistically significant difference between both studied groups as regard HCV-RNA level..9

Table(23) shows PCR at week 12.this table shows that 38cases (76%)in steatotic group achieved early virological response(EVR) and became PCR negative,the other 12 cases(24%) did not achieve EVR and discontinued therapy.in non steatotic group 42 cases(84%) achieved EVR,other 8 cases(16%) did not achieve EVR and discontinued therapy.with statistically significant difference between both studied groups(p-value 0.024).

Table(24) shows PCR at week 24.in steatotic group, 35 cases (92.2%)were PCR negative and 3 cases(7.8%) were positive and discontinued therapy.

In non steatotic group, 38(90.5%) cases were negative and 4 cases(9.5%) were positive and discontinued therapy.with statistically significant difference between both studied groups(p-value 0.021).

Table(25) shows PCR at week 48. in steatotic group 33(94.3%) cases were PCR negative and 2 cases(5.7%) were positive and discontinued therapy.in non steatotic group there are 35 cases(92.1%) PCR negative and 3(7.9%) cases were positive and discontinued therapy. with statistically significant difference between both studied groups(p- value 0.032).

Table (26) shows PCR at week 72 (6 months after end of treatment).this table shows 30 cases(90.9%) were PCR negative and 3 cases(9.1%) were positive in steatotic group.in non steatotic group there is 32(91.4%) cases negative and 3 cases(8.6%) positive.with statistically non significant difference between both studied groups.

Table (27) shows the sustained virological response(SVR) between both studied groups . this table shows 60% response to the anti viral treatment in steatotic

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group comparable to 64% in non steatotic group with statistically non significant difference between both studied groups (p- value 0.099).

Table(8)

Age	Steatotic	Non steatotic
Mean	38.98	35.25
±SD	8.93	5.64
t. test	0.639	
p. value	0.528 NS	

NS = non significant

Table(8)shows comparison between both studied groups as regard Age .this table shows that no statistically significant difference could be detected between both studied groups as regard age.

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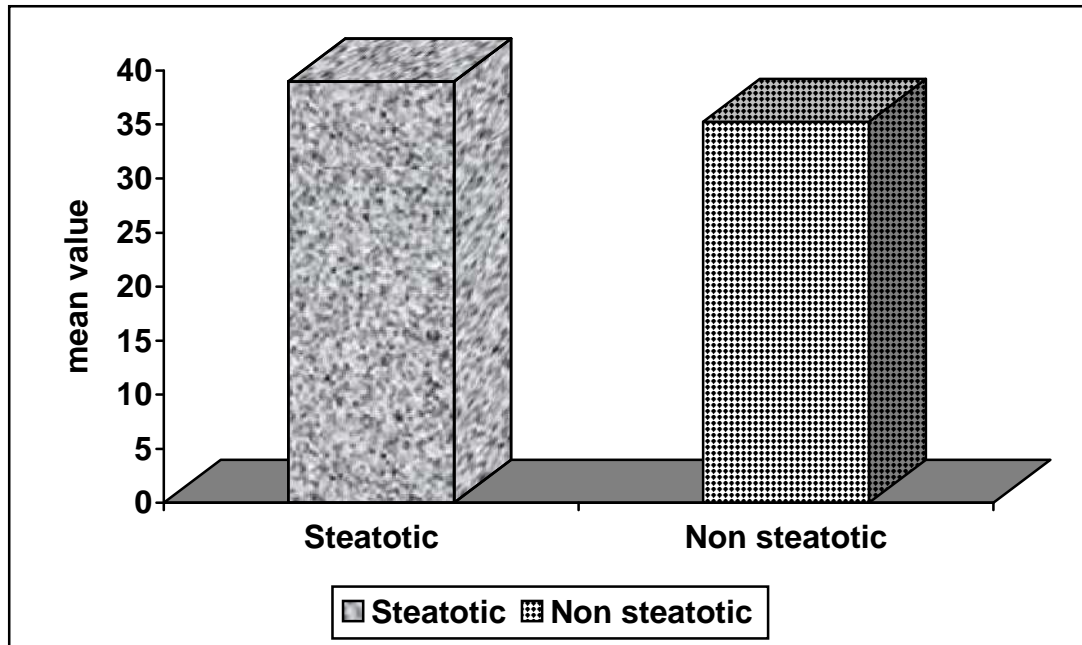


Figure (7) shows comparison between both studied groups as regard Age. This table shows that no statistically significant difference could be detected between both studied groups as regard age.

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Table(9)

		Sex		Total
		Male	Female	
Steatotic	N	31	19	50
	%	62	38	100
Non steatotic	N	30	20	50
	%	60	40	100
Total	N	61	39	100
	%	61	39	100
Chi-Square	X²	1.253		
	P-value	0.325 NS		

Table(9)shows comparison between studied groups as regard Gender. this table shows that no statistically significant difference could be detected between both studied groups as regard gender.

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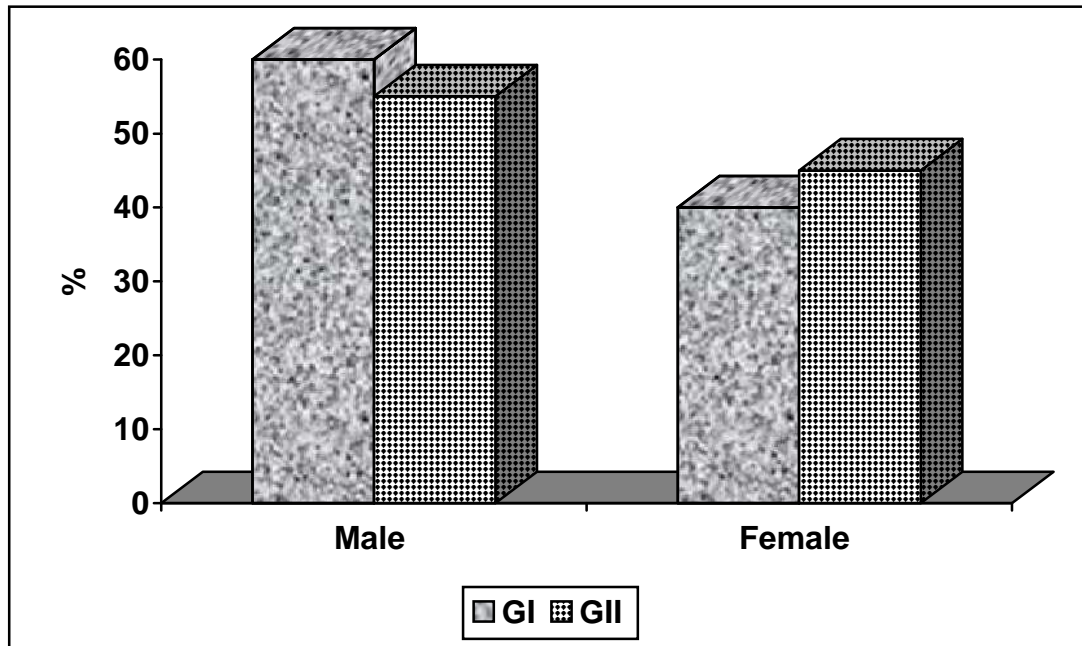


Figure (8) shows comparison between studied groups as regard Gender. this table shows that no statistically significant difference could be detected between both studied groups as regard gender.

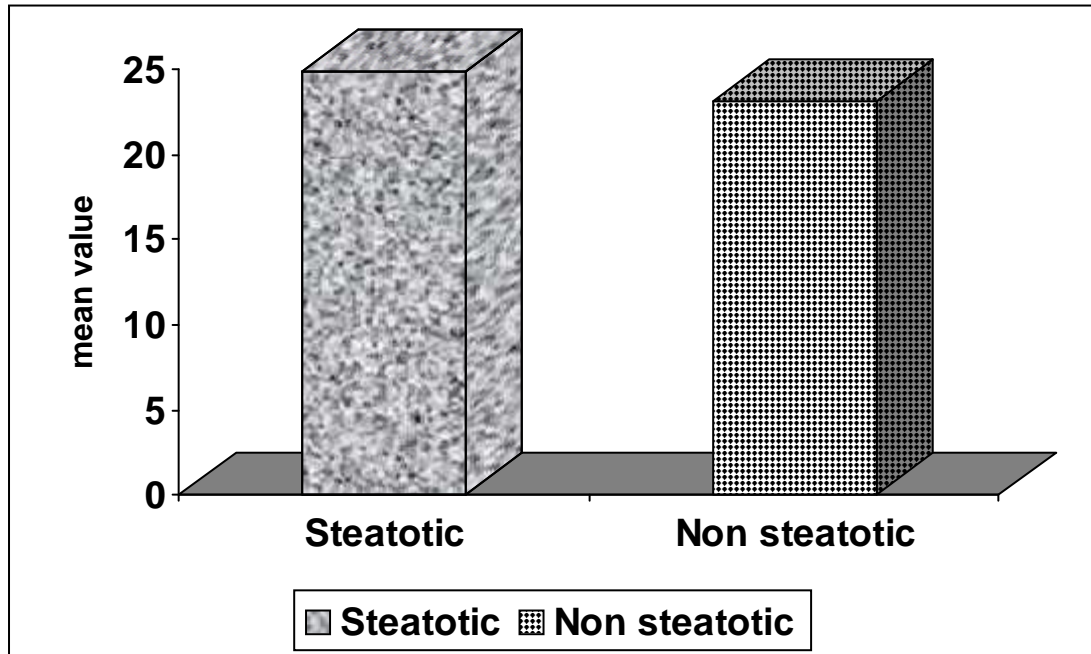
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Table(10)

Body mass index	Steatotic	Non steatotic
Mean	24.8	23.1
±SD	0.96	0.59
t. test	0.582	
p. value	0.963 NS	

Table(10) groups shows comparison between studied as regard body mass index(BMI). this table shows that no statistically significant difference between both studied groups as regard BMI.

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Figure(9) groups shows comparison between studied as regard body mass index(BMI). this table shows that no statistically significant difference between both studied groups as regard BMI.

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Table (11)

Fasting blood sugar	Steatotic	Non steatotic
Mean	80.1	75.12
\pmSD	6.96	4.32
t. test	1.523	
p. value	0.635	

Table(11)shows comparison between both studied groups as regard fasting blood sugar(FBS).this table shows that no statistically difference could be detected between both studied groups as regard FBS.

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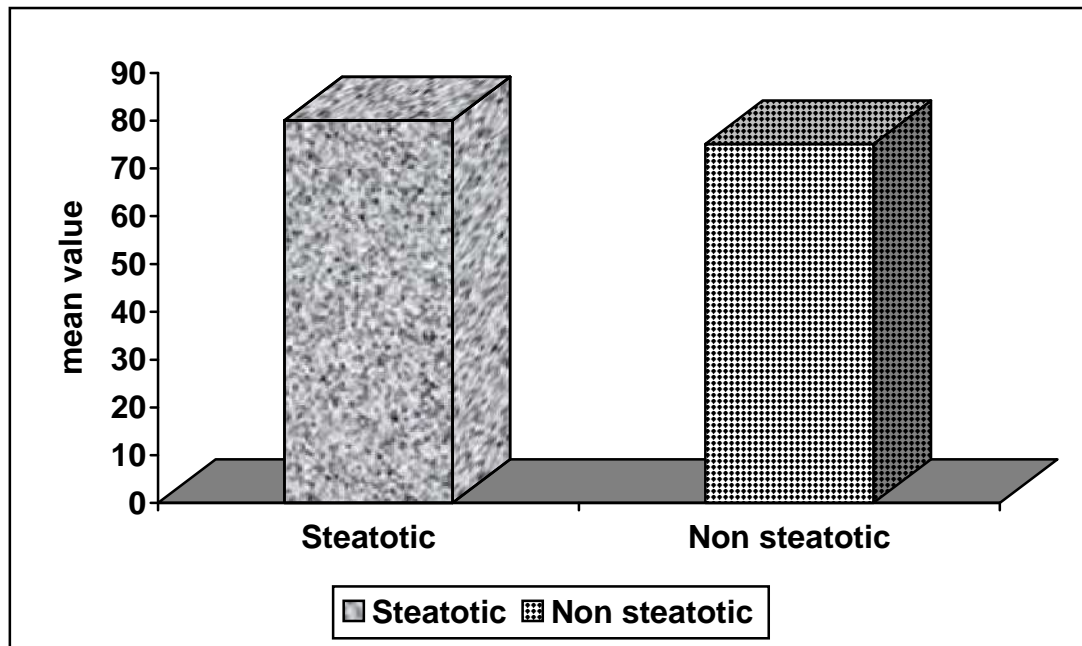


Figure (10) shows comparison between both studied groups as regard fasting blood sugar (FBS). This table shows that no statistically difference could be detected between both studied groups as regard FBS.

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Table(12)

Prothrombine time	Steatotic	Non steatotic
Mean	12.66	12.95
±SD	0.39	0.36
t. test	0.852	
p. value	0.629	

Table (12) shows comparison between both studied groups as regard prothrombine time(P.T). This table shows that no stastically significant difference could be detected between both studied groups as regard P.T.

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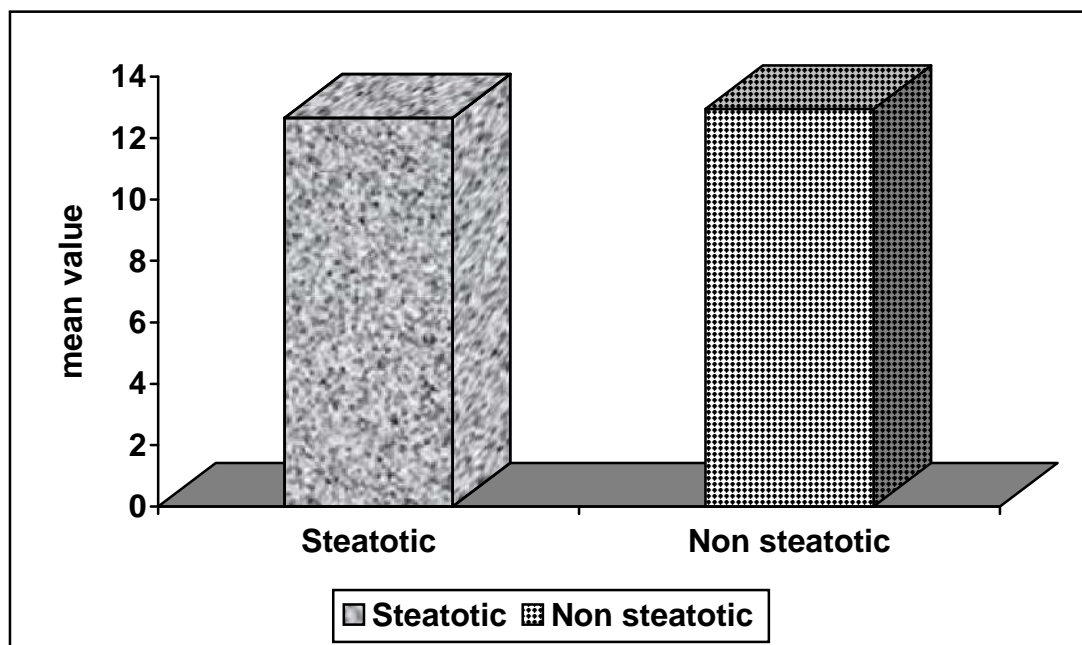


Figure (11) shows comparison between both studied groups as regard prothrombine time(P.T). This table shows that no stastically significant difference could be detected between both studied groups as regard P.T.

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Table(13)

Serum albumin	Steatotic	Non steatotic
Mean	4.45	4.71
±SD	0.47	0.45
t. test	0.528	
p. value	0.321	

Table (13) shows Comparison between both studied groups as regard serum albumin. This table shows that no statistically significant difference could be detected between both studied groups as regard serum albumin.

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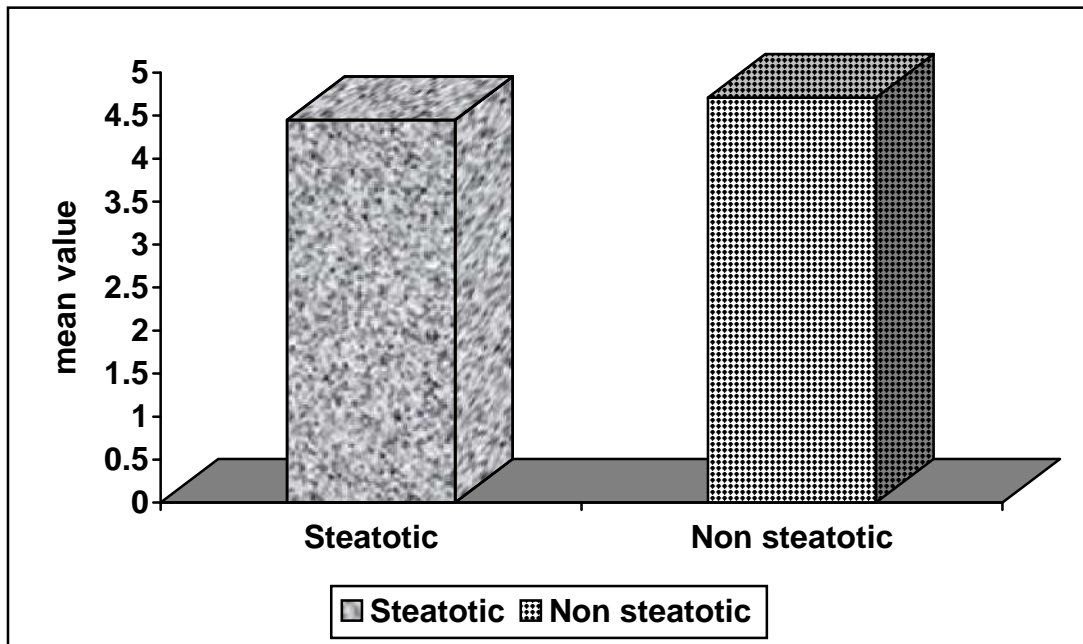


Figure (12) shows Comparison between both studied groups as regard serum albumin. This table shows that no statistically significant difference could be detected between both studied groups as regard serum albumin.

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Table(14)

		Mean	\pm SD	t. test	p. value
AST0	steatotic	48.64	19.09	1.253	0.325
	non steatotic	36.70	14.49		
AST1	steatotic	54.50	36.23	1.325	0.142
	non steatotic	35.80	12.64		
AST2	steatotic	47.86	24.64	1.523	0.258
	non steatotic	36.10	8.93		
AST4	steatotic	40.90	16.24	0.358	0.528
	non steatotic	41.90	13.09		
AST8	steatotic	38.74	18.34	0.428	0.147
	non steatotic	39.60	12.57		
AST12	steatotic	47.20	20.80	1.325	0.142
	non steatotic	28.90	5.81		
AST16	steatotic	47.86	21.91	2.325	0.368
	non steatotic	32.20	6.27		
AST20	steatotic	49.70	34.20	2.395	0.369
	non steatotic	35.20	21.47		
AST24	steatotic	47.92	27.77	2.254	0.085
	non steatotic	29.30	9.20		
AST28	steatotic	44.92	29.46	0.417	0.74
	non steatotic	32.20	11.71		
AST32	steatotic	47.46	25.28	0.951	0.088
	non steatotic	33.80	18.13		
AST36	steatotic	49.76	35.42	0.753	0.095
	non steatotic	24.30	8.60		
AST40	steatotic	41.26	21.02	0.951	0.075
	non steatotic	27.20	10.23		
AST44	steatotic	37.60	14.29	2.220	0.064
	non steatotic	27.80	11.17		
AST48	steatotic	38.38	15.61	2.014	0.055
	non steatotic	28.50	6.85		

Table(14) shows comparison between both studied groups as regard serum AST.this table shows that no statistically significant difference could be detected between both studied groups as regard AST.

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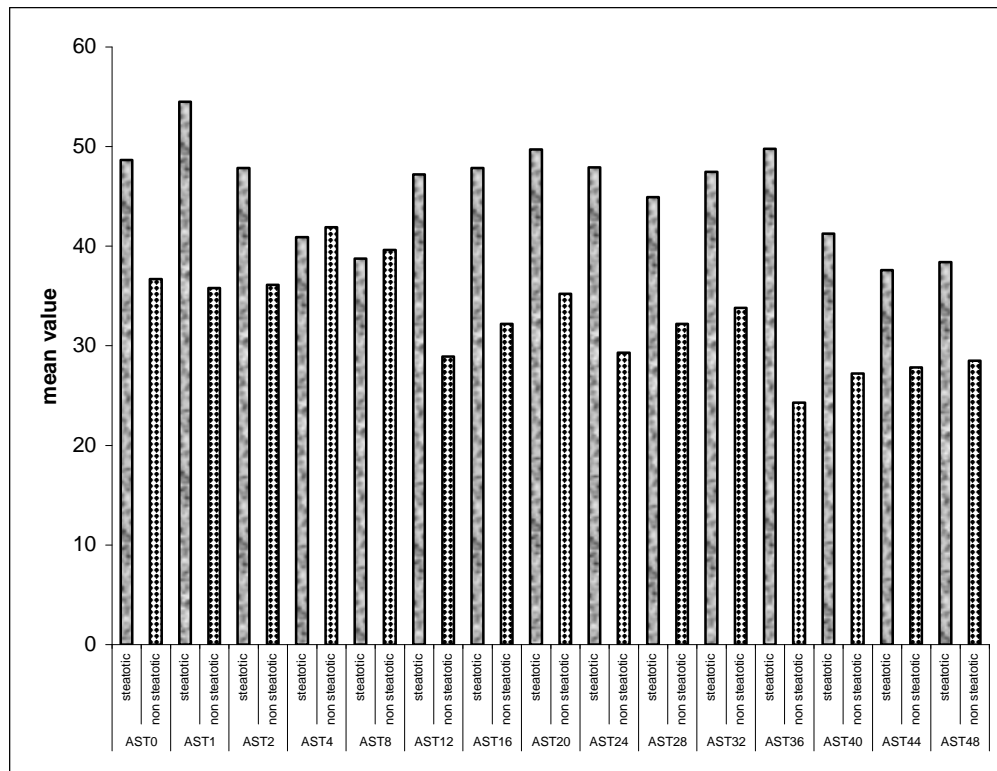


Figure (13) shows comparison between both studied groups as regard serum AST. this table shows that no statistically significant difference could be detected between both studied groups as regard AST.

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Table (15)

		Mean	± SD	t. test	p. value
ALT0	steatotic	58.64	39.83	3.325	0.099
	non steatotic	35.70	14.50		
ALT1	steatotic	64.86	43.94	4.232	0.085
	non steatotic	34.50	18.29		
ALT2	steatotic	55.28	33.76	0.539	0.194
	non steatotic	47.20	27.66		
ALT4	steatotic	42.24	21.27	0.428	0.620
	non steatotic	40.40	14.03		
ALT8	steatotic	44.74	29.95	2.325	0.632
	non steatotic	33.70	12.66		
ALT12	steatotic	50.24	34.15	3.253	0.222
	non steatotic	27.50	7.73		
ALT16	steatotic	52.66	31.49	2.147	0.055
	non steatotic	32.40	6.37		
ALT20	steatotic	61.06	60.88	1.256	0.632
	non steatotic	29.90	12.59		
ALT24	steatotic	49.34	39.66	2.302	0.147
	non steatotic	30.00	9.09		
ALT28	steatotic	47.46	42.08	1.921	0.105
	non steatotic	25.50	9.46		
ALT32	steatotic	50.78	41.87	1.456	0.325
	non steatotic	23.60	6.80		
ALT36	steatotic	42.68	27.07	3.205	0.214
	non steatotic	23.50	5.94		
ALT40	steatotic	37.80	20.33	1.221	0.419
	non steatotic	25.50	9.72		
ALT44	steatotic	33.40	14.51	1.365	0.099
	non steatotic	24.30	9.31		
ALT48	steatotic	42.60	30.03	0.951	0.632
	non steatotic	23.90	7.23		

Table(15) shows comparison between both studied groups as regard ALT.this table shows that no statistically significant difference could be detected between both studied groups as regard ALT.

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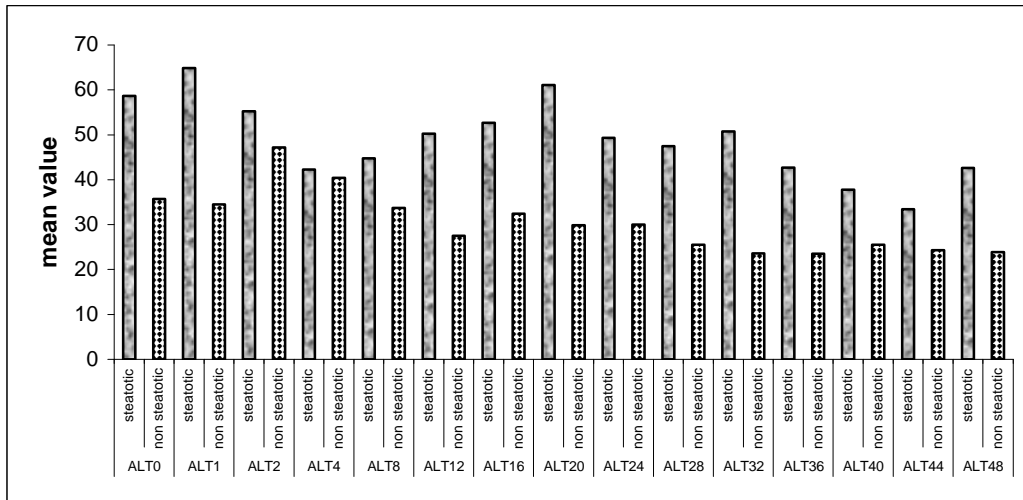


Figure (14) shows comparison between both studied groups as regard ALT. this table shows that no statistically significant difference could be detected between both studied groups as regard ALT.

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Table(16)

		Mean	± SD	t. test	p. value
BIL0	steatotic	1.1	.84	1.201	0.635
	non steatotic	.86	.15		
BIL1	steatotic	.94	.14	2.369	0.325
	non steatotic	.85	.22		
BIL2	steatotic	.94	.12	5.325	0.417
	non steatotic	.80	.18		
BIL4	steatotic	.89	.16	0.658	0.258
	non steatotic	.87	.16		
BIL8	steatotic	.92	.26	0.858	0.324
	non steatotic	.85	.14		
BIL12	steatotic	.91	.15	2.241	0.159
	non steatotic	.89	.22		
BIL16	steatotic	.85	.24	0.74	0.147
	non steatotic	.81	.19		
BIL20	steatotic	.82	.23	3.325	0.302
	non steatotic	.80	.17		
BIL24	steatotic	.88	.19	5.369	0.508
	non steatotic	.86	.34		
BIL28	steatotic	.86	.26	0.478	0.952
	non steatotic	.83	.20		
BIL32	steatotic	.88	.22	0.869	0.099
	non steatotic	.86	.12		
BIL36	steatotic	.88	.23	2.584	0.068
	non steatotic	.83	.14		
BIL40	steatotic	.91	.22	0.951	0.074
	non steatotic	.83	.07		
BIL44	steatotic	.86	.12	0.325	0.052
	non steatotic	.83	.11		
BIL48	steatotic	.84	.12	0.421	0.621
	non steatotic	.81	.14		

Table (16) shows Comparison between both studied groups as regard serum bilirubin. This table shows that no statistically significant difference could be detected between both studied groups as regard serum bilirubin.

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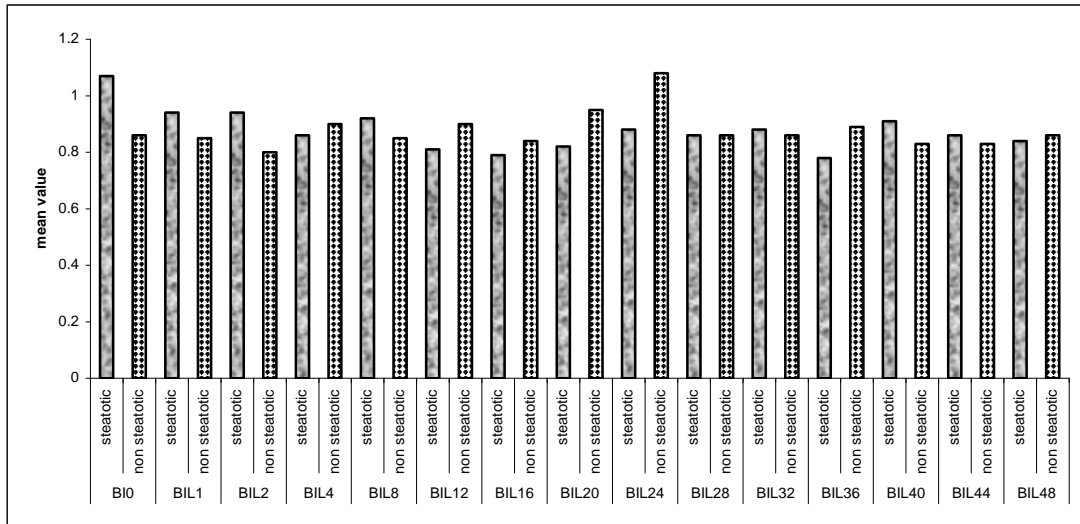


Figure (15) shows Comparison between both studied groups as regard serum bilirubin. This table shows that no statistically significant difference could be detected between both studied groups as regard serum bilirubin.

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Table(17)

Inflammatory score	Steatotic	Non steatotic
Mean	8.62	5.52
±SD	1.50	1.27
t. test	2.325	
p. value	0.048	

Table (17) Shows comparison between both studied groups as regard inflammatory score(I.S).this table shows that the steatotic cases had higher I.S compared to non steatotic cases with statistically significant difference.

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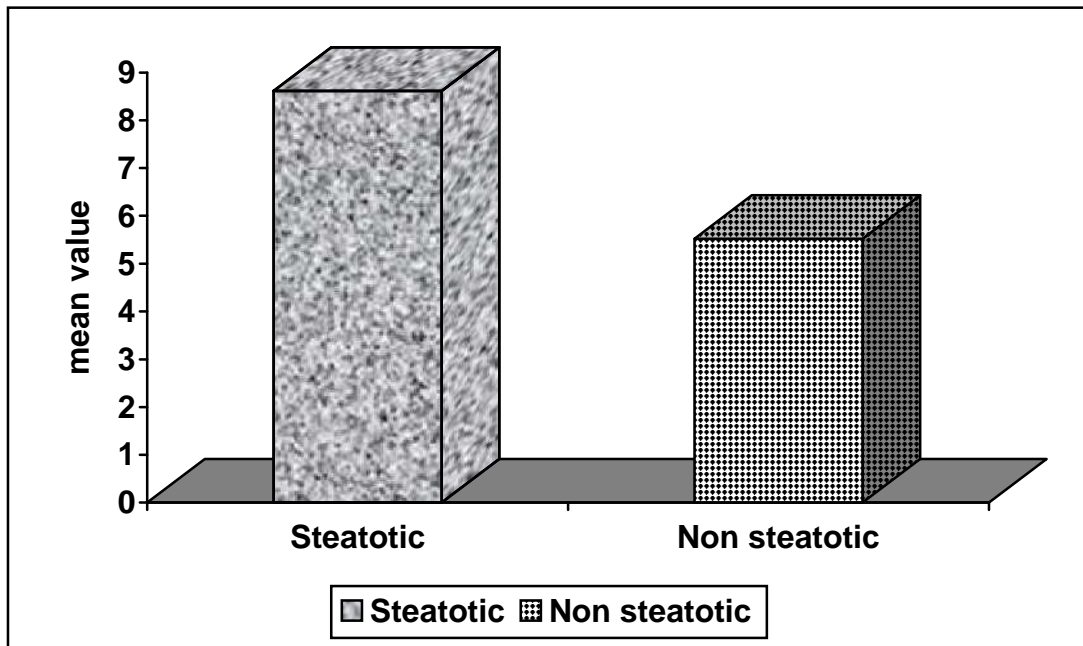


Figure (16) Shows comparison between both studied groups as regard inflammatory score(I.S).this table shows that the steatotic cases had higher I.S compared to non steatotic cases with statistically significant difference.

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Table(18)

		Fibrosis		Total
		FI	F2	
Steatotic	N	22	28	50
	%	44	56	100
Non steatotic	N	26	24	50
	%	52	48	100
Total	N	48	52	100
	%	48	52	100
Chi-Square	X ²	2.325		
	P-value	0.034		

Table (18) shows comparison between both studied groups as regard fibrotic score. This table shows that steatotic group had a higher fibrosis score compared to non steatotic group with statistically significant difference.

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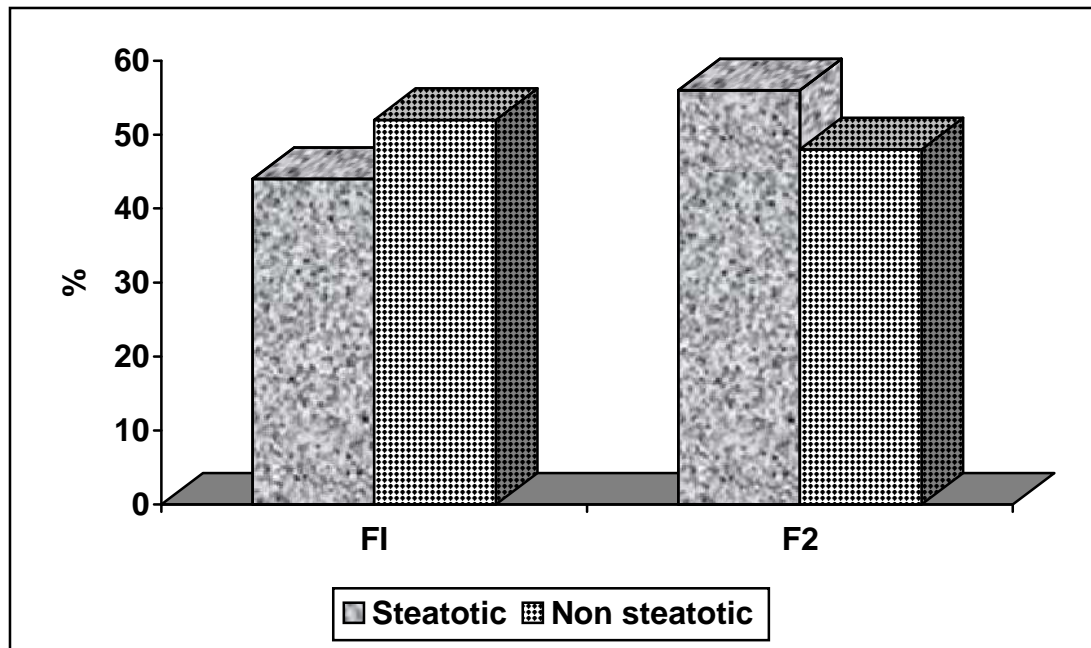


Figure (17) shows comparison between both studied groups as regard fibrotic score. This table shows that steatotic group had a higher fibrosis score compared to non steatotic group with statistically significant difference.

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Table(19)

		Mean	± SD	t. test	p. value
HB0	steatotic	14.39	1.21	0.528	0.104
	non steatotic	13.75	1.14		
HB1	steatotic	14.23	1.44	0.625	0.580
	non steatotic	13.57	1.74		
HB2	steatotic	13.4	1.38	0.959	0.205
	non steatotic	13.06	1.77		
HB4	steatotic	11.96	1.00	0.325	0.314
	non steatotic	12.67	1.96		
HB8	steatotic	11.87	1.00	0.325	0.407
	non steatotic	11.67	1.44		
HB12	steatotic	11.35	1.46	0.528	0.889
	non steatotic	10.92	1.85		
HB16	steatotic	11.20	1.27	0.478	0.325
	non steatotic	12.45	1.60		
HB20	steatotic	12.16	1.67	0.628	0.417
	non steatotic	11.40	.56		
HB24	steatotic	11.2	1.24	0.055	0.099
	non steatotic	11.00	1.18		
HB28	steatotic	13.25	2.53	0.419	0.325
	non steatotic	11.13	1.93		
HB32	steatotic	11.00	1.54	0.325	0.088
	non steatotic	10.88	1.44		
HB36	steatotic	11.36	1.39	0.120	0.077
	non steatotic	10.92	1.78		
HB40	steatotic	11.19	1.27	0.305	0.099
	non steatotic	11.44	2.26		
HB44	steatotic	11.12	1.60	0.893	0.525
	non steatotic	11.17	1.44		
HB48	steatotic	11.01	1.03	0.774	0.220
	non steatotic	10.96	1.78		

Table(19) shows comparison between both studied groups as regard hemoglobin(Hb).this table shows that no statistically significant difference could be detected between both studied groups as regard Hb.

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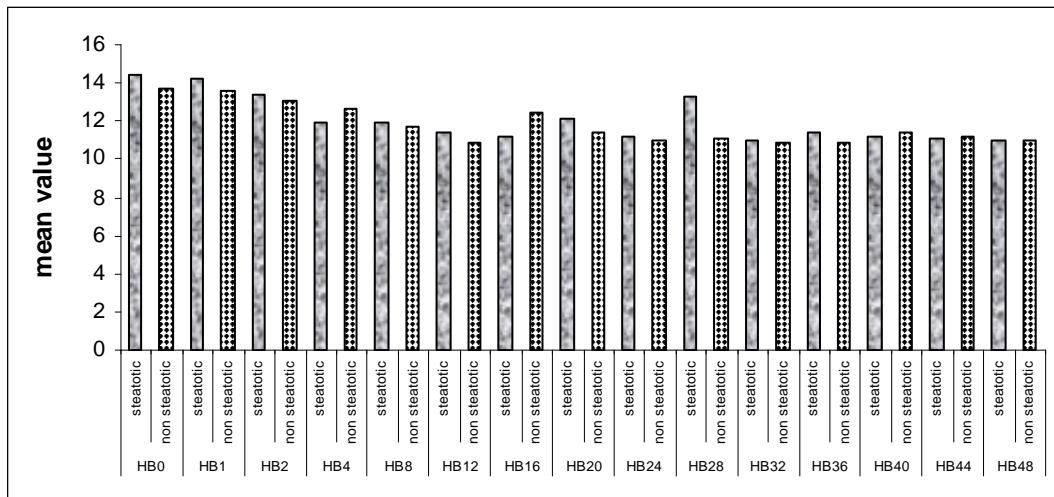


Figure (18) shows comparison between both studied groups as regard hemoglobin(Hb).this table shows that no statistically significant difference could be detected between both studied groups as regard Hb.

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Table(20)

		Mean	± SD	t. test	p. value
WBC0	steatotic	5804	2434.61	0.857	0.866
	non steatotic	5740	1115.01		
WBC1	steatotic	4966	1434.78	0.638	0.454
	non steatotic	5150	903.79		
WBC2	steatotic	4764	1882	0.428	0.807
	non steatotic	4690	1019.65		
WBC4	steatotic	4083.6	1378.58	0.281	0.591
	non steatotic	3930	1470.83		
WBC8	steatotic	3572	1153.17	2.210	0.632
	non steatotic	4110	1303.40		
WBC12	steatotic	3322	1115.43	0.680	0.122
	non steatotic	3060	407.08		
WBC16	steatotic	3268	959.25	2.369	0.254
	non steatotic	4300	2199.60		
WBC20	steatotic	3498	1378.18	0.951	0.353
	non steatotic	3280	911.155		
WBC24	steatotic	4084	1453.02	2.301	0.221
	non steatotic	3480	1175.25		
WBC28	steatotic	3952	1531.77	3.69	0.854
	non steatotic	2850	863.37		
WBC32	steatotic	3320	1366.39	2.104	0.258
	non steatotic	2850	750.84		
WBC36	steatotic	3278	891	3.254	0.147
	non steatotic	4242	2193		
WBC40	steatotic	3006	659.5	2.325	0.369
	non steatotic	3630	912.5		
WBC44	steatotic	3046	622.7	5.285	0.520
	non steatotic	2320	1124.6		
WBC48	steatotic	3036	488.1	4.253	0.410
	non steatotic	3580	250.7		

Table(20) shows comparison between both studied groups as regard white blood cells(WBC).this table shows that no statistically significant difference could be detected between both studied groups as regard WBC.

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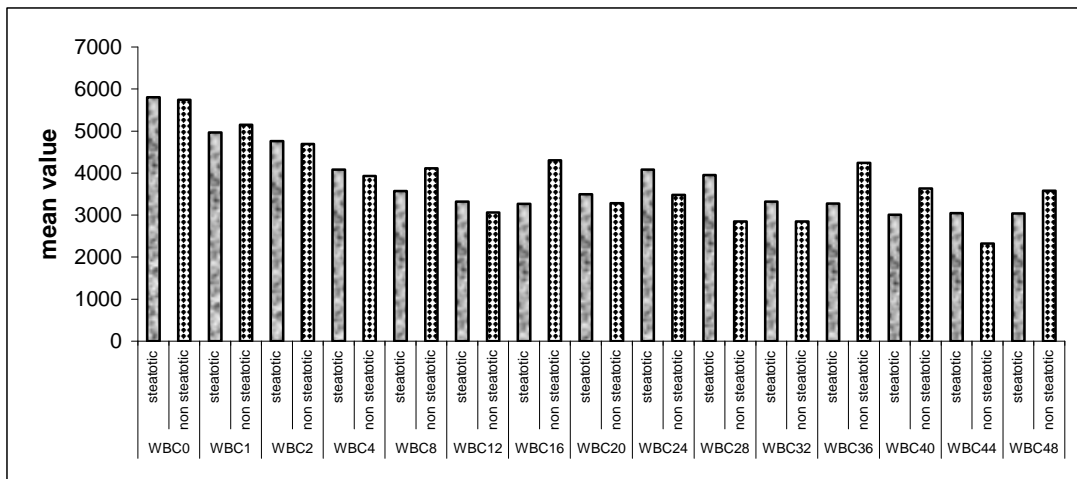


Figure (19) shows comparison between both studied groups as regard white blood cells(WBC).this table shows that no statistically significant difference could be detected between both studied groups as regard WBC.

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Table(21)

		Mean	± SD	t. test	p. value
PLT0	steatotic	181700	49356	2.014	0.552
	non steatotic	202300	40068		
PLT1	steatotic	185540	69365.4	0.856	0.121
	non steatotic	169100	36380.7		
PLT2	steatotic	173300	55474.6	3.320	0.241
	non steatotic	200400	33861		
PLT4	steatotic	152800	49338	1.447	0.075
	non steatotic	168100	34432.5		
PLT8	steatotic	148960	54720.4	0.951	0.114
	non steatotic	134500	33552.4		
PLT12	steatotic	140660	48818.1	0.355	0.324
	non steatotic	133900	38731		
PLT16	steatotic	132820	38817.04	0.753	0.182
	non steatotic	145700	55543.7		
PLT20	steatotic	153740	54010.8	0.951	0.257
	non steatotic	143500	33406.1		
PLT24	steatotic	144729	73104.2	0.714	0.180
	non steatotic	130100	22921.5		
PLT28	steatotic	161700	56095.1	1.992	0.204
	non steatotic	137400	34113.2		
PLT32	steatotic	143540	26679.6	0.262	0.224
	non steatotic	150400	29281.1		
PLT36	steatotic	128271	61501.7	1.521	0.068
	non steatotic	148400	46304.6		
PLT40	steatotic	144060	32681.1	3.200	0.985
	non steatotic	169500	48145.7		
PLT44	steatotic	146200	49402.5	0.291	0.251
	non steatotic	141300	32798.2		
PLT48	steatotic	138740	38134.9	1.100	0.090
	non steatotic	137510	37120.6		

Table(21) shows comparison between both studied groups as regard platelets. this table shows that no statistically significant difference could be detected between both studied groups as regard platelets.

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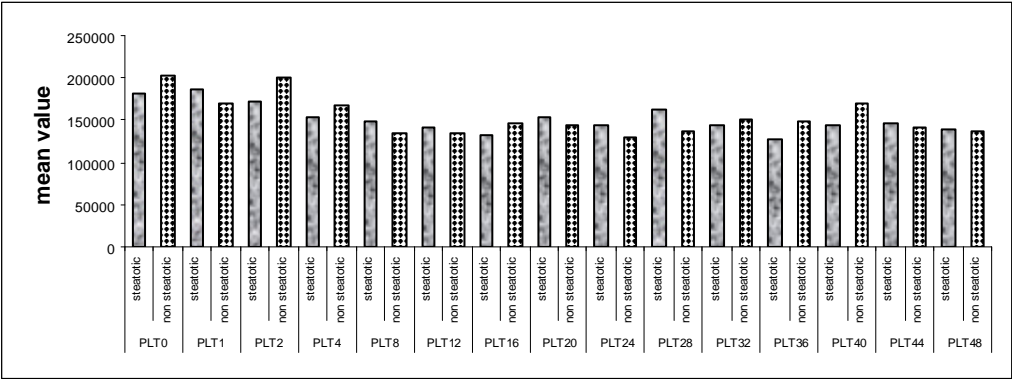


Figure (20) shows comparison between both studied groups as regard platelets. this table shows that no statistically significant difference could be detected between both studied groups as regard platelets.

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Table(22)

Pcr 0	Steatotic	Non steatotic
Mean	441378	247543.3
\pmSD	67524.8	31248.7
t. test	1.586	
p. value	0.069	

Table(22)shows PCR at week zero(before treatment).this table shows no statistically significant difference between both studied groups as regard HCV-RNA level..9

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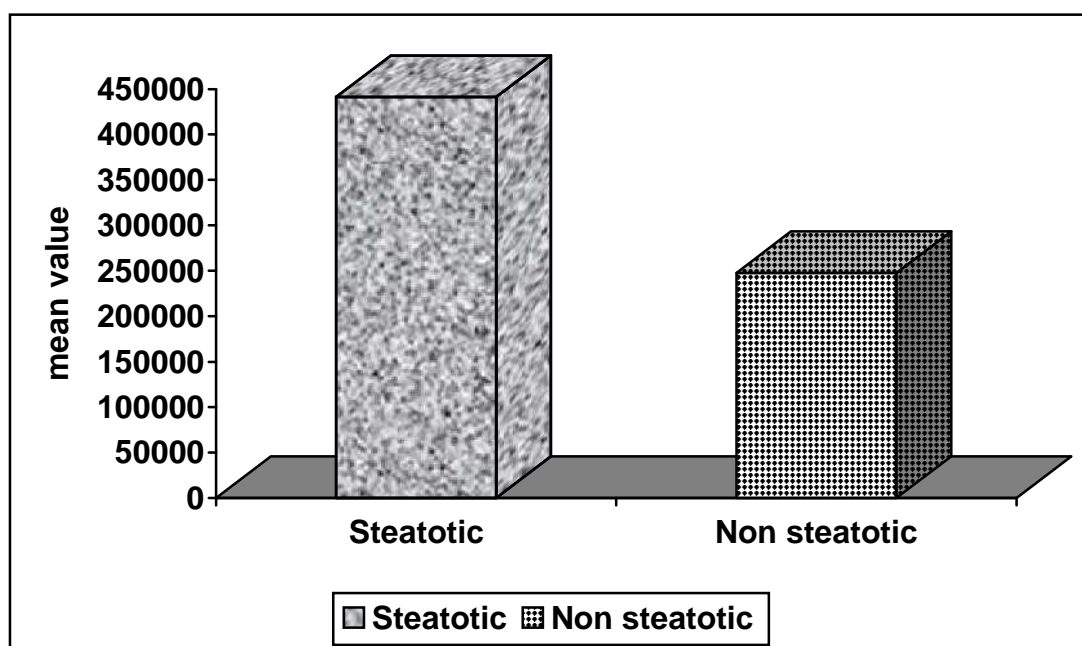


Figure (21) shows PCR at week zero (before treatment). This table shows no statistically significant difference between both studied groups as regards HCV-RNA level..9

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Table(23)

		Pcr 12		Total
		+ve	-ve	
Steatotic	N	12	38	50
	%	24	76	100
Non steatotic	N	8	42	50
	%	16	84	100
Total	N	20	80	100
	%	20	80	100
Chi-Square	X²	3.362		
	P-value	0.024		

Table(23) shows PCR at week 12. this table shows that 38 cases (76%) in the steatotic group achieved early virological response (EVR) and became PCR negative, the other 12 cases (24%) did not achieve EVR and discontinued therapy. In the non steatotic group 42 cases (84%) achieved EVR, other 8 cases (16%) did not achieve EVR and discontinued therapy. with statistically significant difference between both studied groups (p-value 0.024).

Results

Table(24)

		Pcr 24		Total
		+ve	-ve	
Steatotic	N	3	35	38
	%	7.8	92.2	100
Non steatotic	N	4	38	42
	%	9.5	90.5	100
Total	N	7	73	80
	%	8.75	91.25	100
Chi-Square	X²	4.325		
	P-value	0.021		

Table(24) shows PCR at week 24.in steatotic group, 35 cases (92.2%)were PCR negative and 3 cases(7.8%) were positive and discontinued therapy.

In non steatotic group, 38(90.5%) cases were negative and 4 cases(9.5%) were positive and discontinued therapy.with statistically significant difference between both studied groups(p-value 0.021).

Results

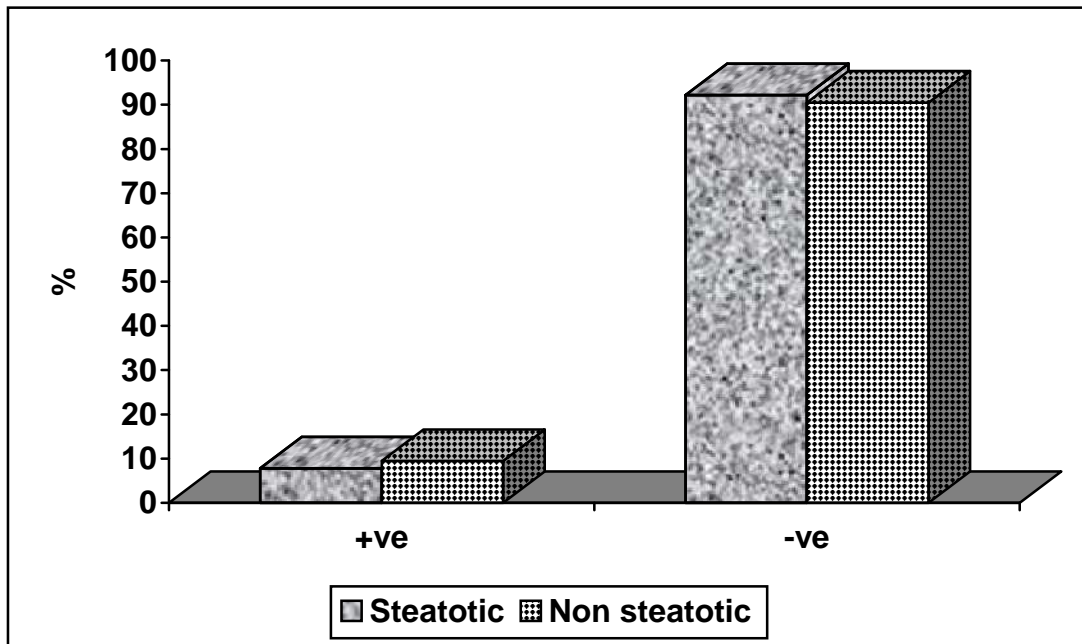


Figure (23) shows PCR at week 24.in steatotic group, 35 cases (92.2%)were PCR negative and 3 cases(7.8%) were positive and discontinued therapy.

In non steatotic group, 38(90.5%) cases were negative and 4 cases(9.5%) were positive and discontinued therapy.with statistically significant difference between both studied groups(p-value 0.021).

Results

Table(25)

		Pcr 48		Total
		+ve	-ve	
Steatotic	N	2	33	35
	%	5.7	94.3	100
Non steatotic	N	3	35	38
	%	7.9	92.1	100
Total	N	5	68	73
	%	6.8	93.2	100
Chi-Square	X²	3.582		
	P-value	0.032		

Table(25) shows PCR at week 48. in steatotic group 33(94.3%) cases were PCR negative and 2 cases(5.7%) were positive and discontinued therapy.in non steatotic group there are 35 cases(92.1%) PCR negative and 3(7.9%) cases were positive and discontinued therapy. with statistically significant difference between both studied groups(p- value 0.032).

Results

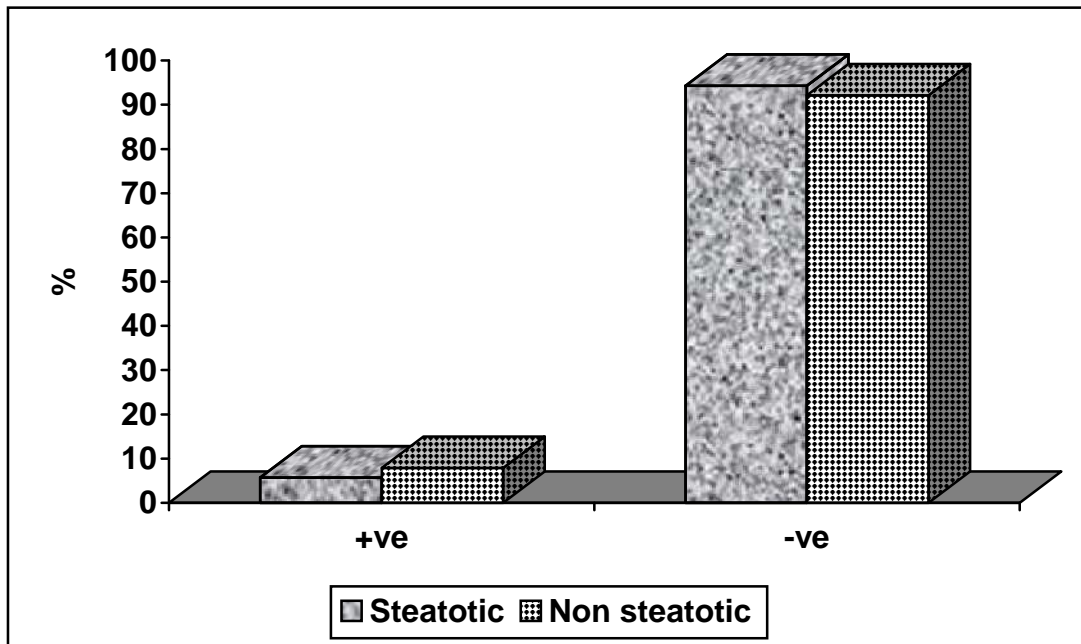


Figure (24) shows PCR at week 48. in steatotic group 33(94.3%) cases were PCR negative and 2 cases(5.7%) were positive and discontinued therapy.in non steatotic group there are 35 cases(92.1%) PCR negative and 3(7.9%) cases were positive and discontinued therapy. with statistically significant difference between both studied groups(p- value 0.032).

Results

Table(26)

		Pcr 72		Total
		+ve	-ve	
Steatotic	N	3	30	33
	%	9.1	90.9	100
Non steatotic	N	3	32	35
	%	8.6	91.4	100
Total	N	6	62	77
	%	7.8	92.2	100
Chi-Square	X²	4.253		
	P-value	0.009		

Table (26) shows PCR at week 72 (6 months after end of treatment).this table shows 30 cases(90.9%) were PCR negative and 3 cases(9.1%) were positive in steatotic group.in non steatotic group there is 32(91.4%) cases negative and 3 cases(8.6%) positive.with statistically non significant difference between both studied groups.

Results

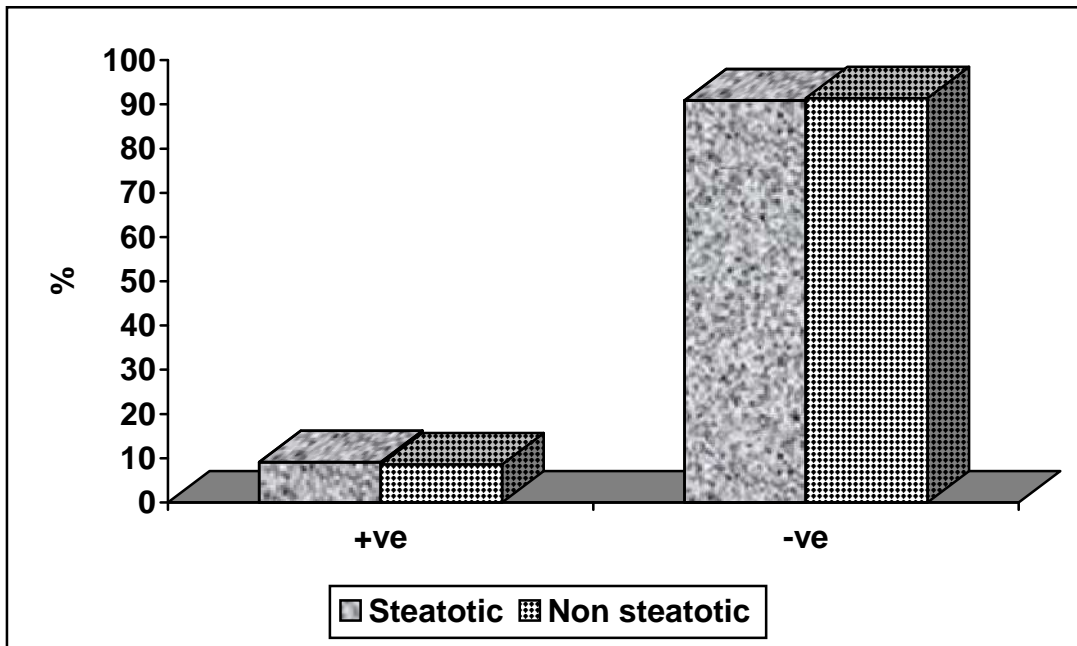


Figure (25) shows PCR at week 72 (6 months after end of treatment).this table shows 30 cases(90.9%) were PCR negative and 3 cases(9.1%) were positive in steatotic group.in non steatotic group there is 32(91.4%) cases negative and 3 cases(8.6%) positive.with statistically non significant difference between both studied groups.

Results

Table(27)

	Steatotic	Non steatotic
SVR	60%	64%
X²	1.417	
P. value	0.099	

Table (27) shows the sustained virological response(SVR) between both studied groups . this table shows 60% response to the anti viral treatment in steatotic group comparable to 64% in non steatotic group with statistically non significant difference between both studied groups (p- value 0.099).

Results

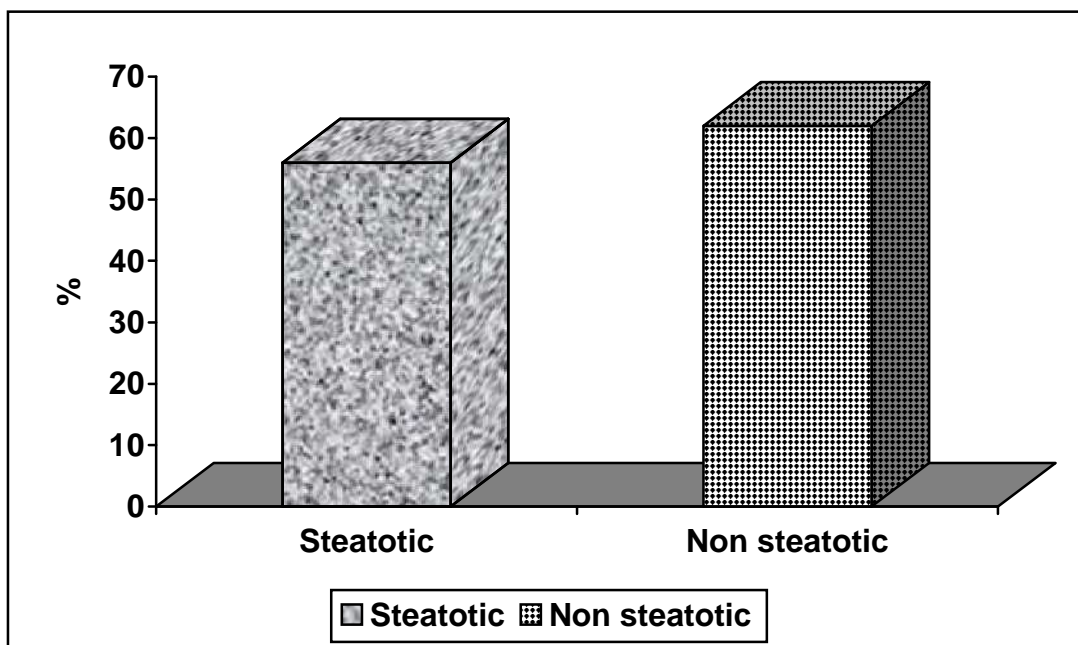


Figure (26) shows the sustained virological response(SVR) between both studied groups . this table shows 60% response to the anti viral treatment in steatotic group comparable to 64% in non steatotic group with statistically non significant difference between both studied groups (p- value 0.099).

Results

Statistics

Statistical presentation and analysis of the present study was conducted, using the mean, standard deviation , and chi-square test by SPSS V.16.

1- Mean value $\left(\bar{X}\right)$: the sum of all observations divided by the number of observation:

$$\left(\bar{X}\right) = \frac{\sum x}{n}$$

Where Σ = sum & n = number of observations.

2-Standard Deviation [SD]:

It measures the degree of scatter of individual varieties around their mean:

$$SD = \sqrt{\frac{\sum |x - \bar{x}|^2}{n - 1}}$$

4-Chi-square the hypothesis that the row and column variables are independent, without indicating strength or direction of the relationship. Pearson chi-square and likelihood-ratio chi-square. Fisher's exact test and Yates' corrected chi-square are computed for 2x2 tables.