Results

The present study was conducted on 1000 patients with hepatitis C virus antibodies diagnosed by ELISA test. The following are the data of studied group.

Sex distribution of patients in the study group (Table 3) (Fig. 5):

Out of 1000 patients, 652 were males (65.2%) and 348 were females (34.8%).

Age and weight of patients (Table 4) (Fig. 6):

Age was ranging from 24-55 years with mean value of 43.07±8.56. The mean value of their weight was 82.5±14.0.

Comparison between Complete blood picture before and after treatment (Table 5) (Fig7):

Hemoglobin (gm/dL):

- Before starting the treatment the mean value was 14.50±1.565.
- After 24 weeks of treatment, It was 11.89±1.53.

No significant difference was found (P-value >0.05).

White blood cells/Cmm:

- Before starting the treatment the mean value was 6670.12±2020.321.
- After 24 weeks of treatment, It was 3653.77±1256.25

No significant difference was found (P-value>0.05).

Platelet count/Cmm:

- Before starting the treatment the mean value was

1334.17±11245.302

- After 24 weeks of treatment, It was 162.19±97.49

  No significant difference was found (P-value >0.05).

So, table (5) and figure (7) show no significant difference between blood picture before and after treatment.

Comparison between Liver function tests before and after treatment (Table 6) (Fig. 8):

(1) Serum alanine transaminase (ALT) (U/L):

- The mean value was 63.48±50.12 before starting treatment and 35.59±10.25after 24 weeks of treatment.

It shows significant difference between ALT before and after treatment. P-value = 0.011 (P-value < 0.05).

(2) Serum aspartate transaminase (AST) (U/L):

- The mean value was 51.79±37.84 before starting treatment and

38.43±9.582 after 24 weeks of treatment. It shows significant difference between AST before and after treatment. P-value = 0.049 (P-value < 0.05).

(3) Total serum bilirubin (mg/dL):

- The mean value was .842±.37 before starting treatment and

0.924±0.473 after 24 weeks of treatment. No significant difference was found (P-value > 0.05).

(4) Alkaline phosphatase (U/L):

- The mean value was 281.6±32.25 before starting treatment and

280.7±28.63 after 24 weeks of treatment. No significant difference was found (P-value > 0.05).

(5) Serum albumin (gm/dL):

- The mean value was 4.47±0.45 before starting treatment and 5.142±1.241 after 24 weeks of treatment. No significant difference was found (P-value > 0.05).

(6) **Prothrombin time (sec):**

- The mean value was 13.76±1.20 before starting treatment and 13.65±1.88 after 24 weeks of treatment. No significant difference was found (P-value > 0.05).

Relation between AFP and PCR before and 24 weeks after treatment (Table 7) (Fig. 9):

- The mean value of AFP before treatment was 5.25±0.586 and 3.96± 1.74 after treatment.

It shows significant difference. P–value = 0.047 (P-value < 0.05).

- The mean value of PCR was 230926.4±4556.9 before treatment and 110531±562.9 after 24 weeks treatment showing highly significant difference. P–value = 0.001 (P-value < 0.05).

Correlation between AFP and degree of fibrosis before starting treatment (Table 8) (Fig. 10):

Serum AFP levels are divided into 4 equal groups according to their amounts in the blood from 0-3, 4-6, 7-10, and more than 10. It was found that there is direct correlation between AFP and degree of fibrosis. When the degree of fibrosis was low, AFP levels were low and as the degree of fibrosis increased, AFP also increased.

Table (8) and Figure (10) show significant correlation between AFP and degree of fibrosis. P-value=0.05.

Correlation between AFP levels and response to treatment at 24 weeks (Table 9) (Fig. 11):

Serum AFP levels were divided into 4 equal groups according to their amounts in the blood from 0-3, 4-6, 7-10, and more than 10. The correlation between each group and PCR as a sign of treatment response at 24 weeks is statistically analyzed. It was found that there is statistical significant in response to treatment in patients with different AFP levels. The response to treatment were high when AFP levels were low and when AFP levels were high, the responses were low.

So table (9) and figure (11) show significant positive correlation between AFP levels and PCR at 24 weeks. P-value=0.044 (P-value < 0.05).

Correlation between AFP and response to treatment at 48 weeks (Table 10) (Fig. 12):

Serum AFP levels were divided into 4 groups according to their amounts in the blood from 0-3, 4-6, 7-10, and more than 10. The correlation between different AFP levels and PCR at 48 weeks was statistically analyzed. It was found that there is correlation between AFP levels and the response to treatment at 48 weeks. The response to treatment increased and PCR decreased when AFP levels were low.

Table (10) and figure (12) show significant positive correlation between AFP levels and the response to treatment at 48 weeks.

P-value = 0.021 (P-value < 0.05).

Relation between presence of liver fibrosis and response to treatment at 48 weeks (Table 11) (Fig. 13):

There was significant correlation between the stage of fibrosis and the responses to treatment at 48 weeks. When fibrosis stage was low, the response to treatment was high and when fibrosis stage was high, the response to treatment was low. P-value = 0.021 (P-value < 0.05).

Correlation between AFP and age, sex and weight of patients (Table 12) (Fig. 14a, 14b, 14c):

Table (12) and figure (14a) show significant positive correlation between AFP levels and age of patients in the study group. P-value =0.024 (P-value < 0.05).

Table (12) and figure (14b) show no significant correlation between AFP levels and sex of patients (P-value > 0.05).

Table (12) and figure (14c) show no statistically clinical significance correlation between AFP levels and weight of patients in the study group (P-value> 0.05).

Table (3) Sex of patients

Sex	N	%
Male	652	65.2
Female	348	34.8
Total	1000	100

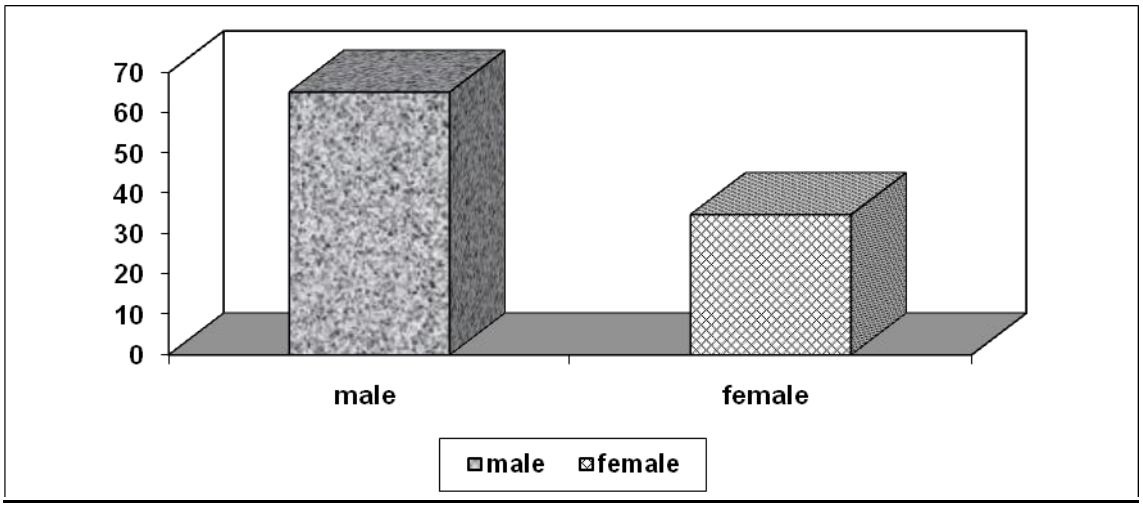

Fig. (5): Sex distribution of patients

Table (4) Age and weight of patients

	Mean (n=1000)	± Std. Deviation
Weight	82.5	14.0
Age	43.07	8.56

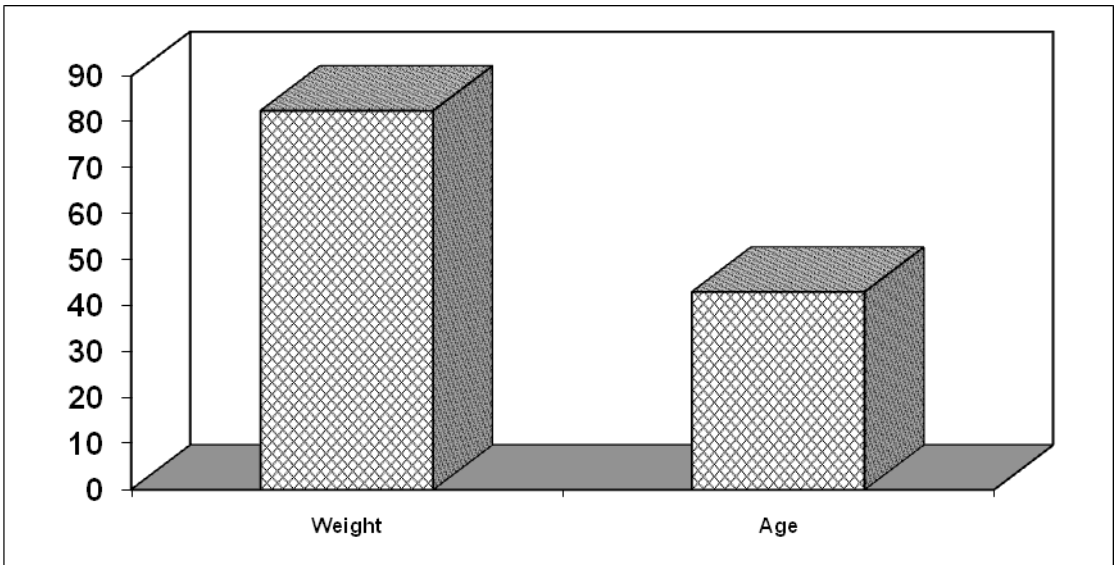

Fig. (6): Age and weight of patients

Table (5): Mean values of complete blood picture before and 24 weeks after treatment

	Before treatment	**24 weeks after treatment**	**P-value**
-Wbc /Cmm: Mean±SD	6670.1±1243.6	4653.77±868.9	0.057
-Hb (gm/dL): Mean±SD	14.50±1.656	11.89±1.53	0.589
-plt/Cmm: Mean±SD	168.36±44.8	173.96±24.58	0.325

Table (5) and figure (7) show no significant difference between blood picture before and after treatment. (P-value > 0.05)

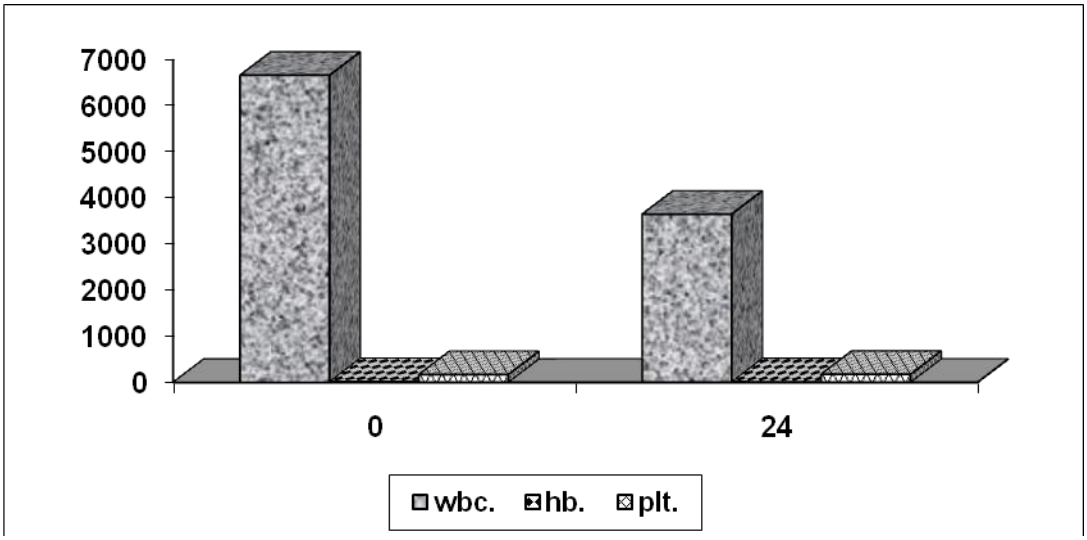

Fig. (7): Complete blood picture before and 24 weeks after treatment

Table (6): Mean values of liver function tests before and after treatment:

	Before treatment	**24 weeks After treatment**	**P-value**
Bilirubin mg/dL: - **Mean±SD**	.842±0.37	0.924±0.473	0.214
AST (U/L): - **Mean±SD**	51.79±37.84	38.43±9.582	0.049 (Significant)
ALT (U/L): - **Mean±SD**	63.48±50.12	35.59±10.25	0.011 (Significant)
Alkaline phosphatase (U/L): - **Mean±SD**	281.6±32.25	280.7±28.63	0.745
Serum albumin (gm/dL): - **Mean±SD**	4.47±0.45	5.142±1.241	0.636
Prothrombin time - **Mean±SD**	13.76±1.20	13.65±1.88	0.419

The table (6) and figure (8) show that there was a significant difference in the study group before and after treatment regarding serum ALT, AST.

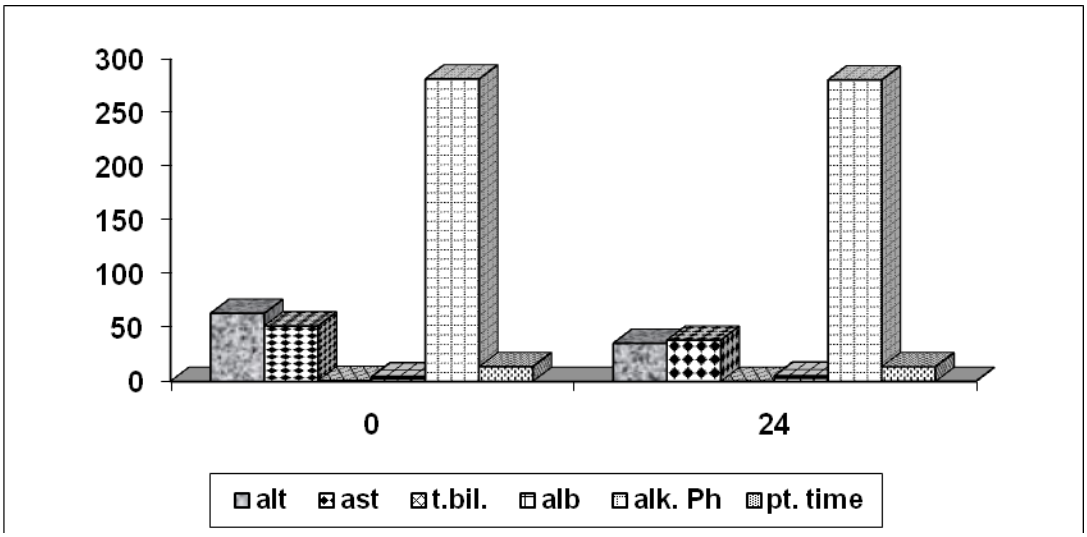

Fig.(8) Comparison between Liver function tests before and after treatment

Table (7) Relation between AFP and PCR before and 24 weeks after treatment

	before treatment	**24 weeks after treatment**	**value**
- AFP Mean±SD	5.25±0.586	3.96±1.74	0.047 (Significant)
- PCR Mean±SD	230926.4±4556.9	110531±562.9	0.001 (Significant)

P-value < 0.05 (Significant)

The table (7) and figure (9) show that there was a significant difference in the study group before and after treatment regarding serum AFP and PCR.

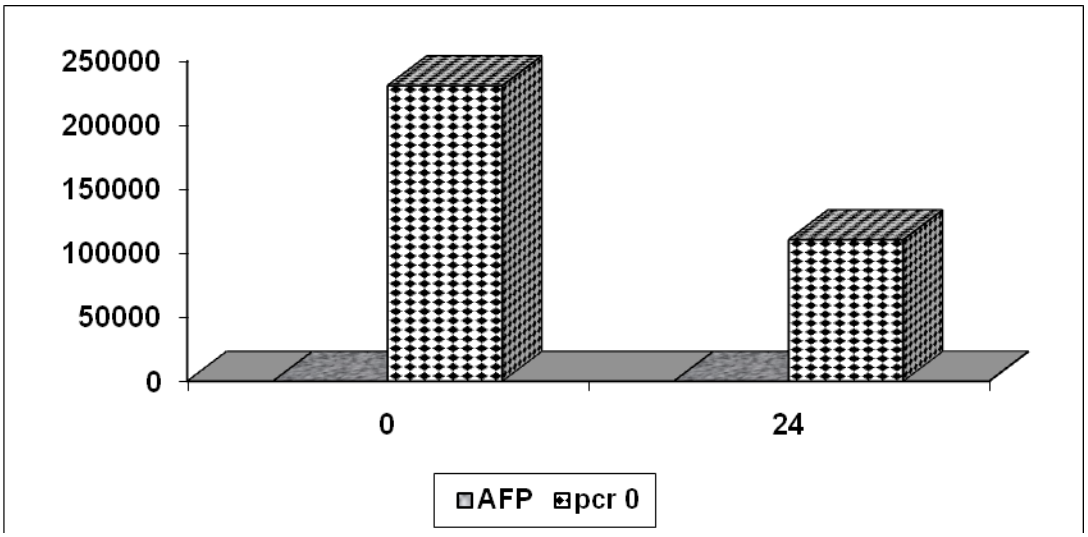

Fig. (9) Relation between AFP and PCR before and 24 weeks after treatment.

Table (8) Correlation between AFP and degree of fibrosis before starting treatment

AFP		Biopsy				
		F1 (1-2)	**F2 (>3)**	**F3 (4-5)**	**F4 (=6)**	**Total**
0-3	N	129	88	26	7	250
	%	51.6	35.2	10.4	2.8	100
4-6	N	76	100	47	27	250
	%	30.4	40	18.8	10.8	100
7-10	N	28	43	105	74	250
	%	11.2	17.2	42	29.6	100
>10	N	3	21	24	202	250
	%	1.2	8.4	9.6	80.8	100
Total	N	236	252	202	310	1000
	%	23.6	25.2	20.2	31	100
Chi-Square	X^2	**11.25**				
	P-value	**0.050**				

P-value < 0.05 (Significant)

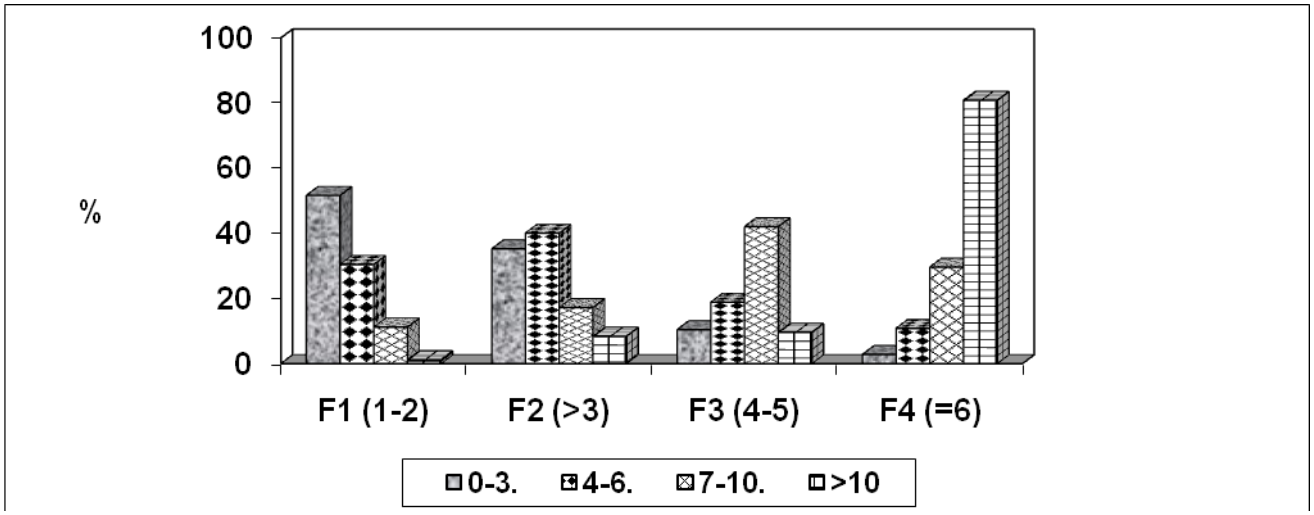

Fig. (10) Correlation between AFP and degree of fibrosis before starting treatment

Table (9) Correlation between AFP and response to treatment at 24 weeks.

AFP		PCR 24		
		-VE	**+VE**	**Total**
0-3	N	204	46	250
	%	81.6	18.4	100
4-6	N	184	66	250
	%	73.6	26.4	100
7-10	N	125	125	250
	%	50	50	100
>10	N	175	75	250
	%	70	30	100
Total	N	688	312	1000
	%	68.8	31.2	100
Chi-Square	X^2	**6.325**		
	P-value	**0.044**		

P-value < 0.05 (Significant)

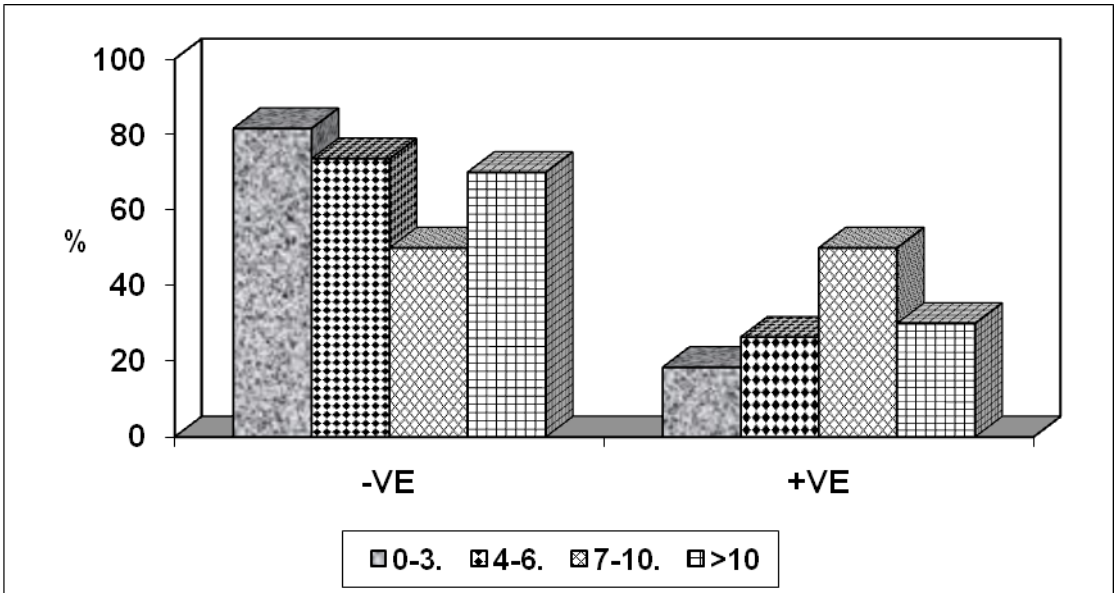

Fig. (11) Correlation between AFP and response to treatment at 24 weeks.

Table (10) Correlation between AFP and response to treatment at 48 weeks.

AFP		PCR 48		
		-VE	**+VE**	**Total**
0-3	N	225	25	250
	%	90	10	100
4-6	N	129	121	250
	%	51.6	48.4	100
7-10	N	138	112	250
	%	55.2	44.8	100
>10	N	150	100	250
	%	60	40	100
Total	N	642	358	1000
	%	64.2	35.8	100
Chi-Square	X^2	**8.652**		
	P-value	**0.021**		

P-value < 0.05 (Significant)

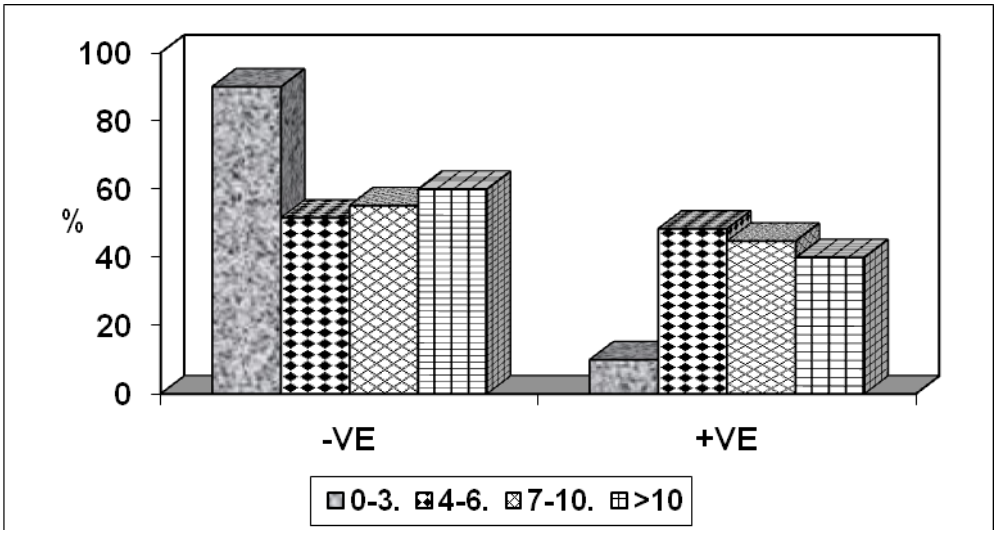

Fig. (12) Correlation between AFP and response to treatment at 48 weeks

Table (11) Relation between stage of fibrosis and response to treatment at 48 weeks

Biopsy			PCR 48		
			-VE	+VE	Total
F1 (1-2)		N	225	25	250
		%	90	10	100
F2 (>3)		N	129	121	250
		%	51.6	48.4	100
F3 (4-5)		N	138	112	250
		%	55.2	44.8	100
F4 (=6)		N	150	100	250
		%	60	40	100
Total		N	642	358	1000
		%	64.2	35.8	100
Chi-Square	X^2		8.652		
	P-value		0.021		

P-value < 0.05 (Significant)

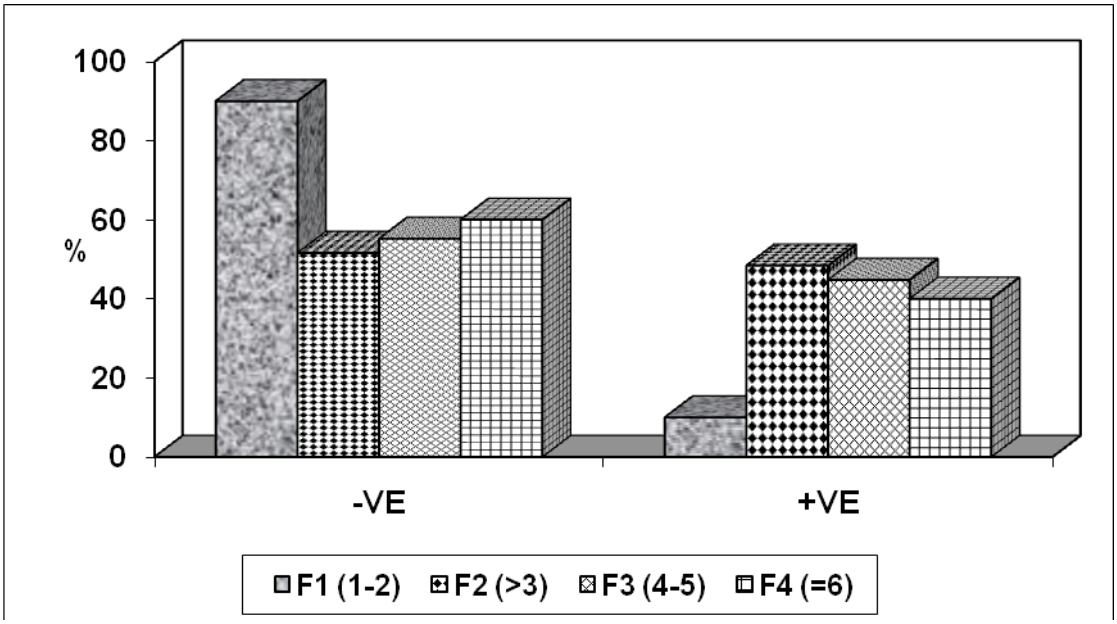

Fig. (13) Relation between stage of fibrosis and response to treatment at 48 weeks.

Table (12): Correlation between AFP and age, sex and weight of patients

	AFP	
	r.	p. value
Age	0.158	0.024 ***(Significant)***
Sex	0.099	0.128
Weight	0.028	0.383

The table (12) and Fig (14a) show significant positive correlation between AFP and age of patients

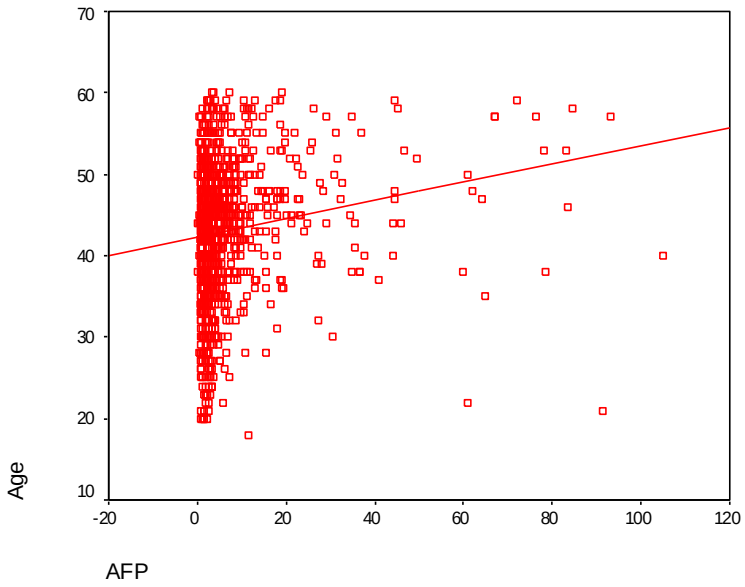

Figure (14a): Correlation between AFP and age of patients

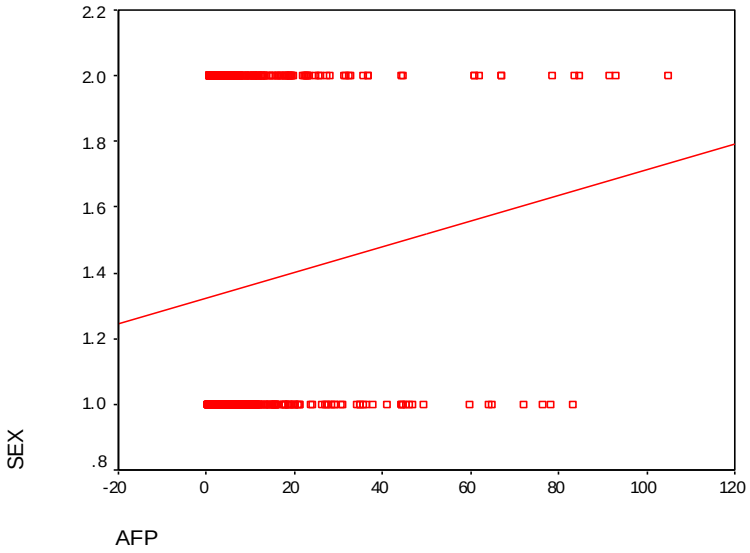

Figure (14b): Correlation between AFP and sex of patients

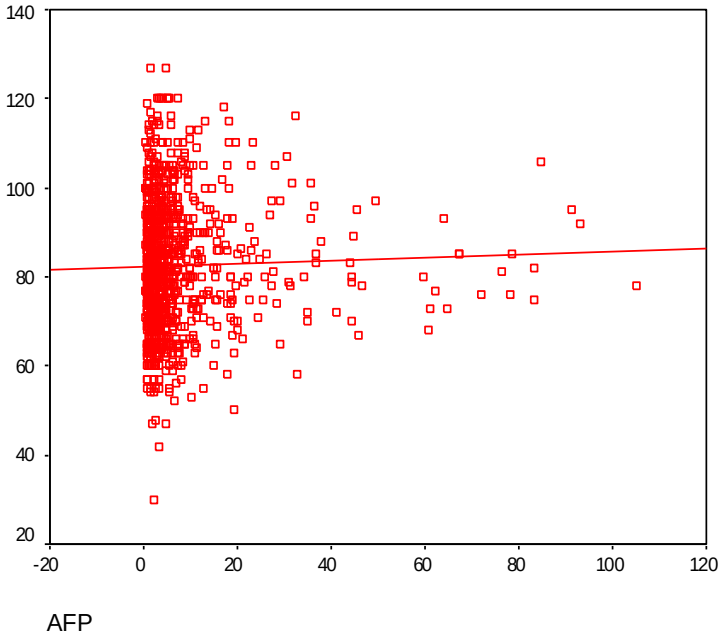

Figure (14c): Correlation between AFP and weight of patients

The table (4) and Fig (14b, 14c) show no significant correlation between AFP and sex or weight of patients.