study subgroup female B: (see table 22).

This group included 45 patients with ages ranging from 20 to 63 (mean 37 ±9.56) with P value=0.791. The old ages >= 50 years were 22.22% (10/45) of all female patients (see table 30). Their weight ranged from 50 to 124 (mean 78.733 ±1.075) with P value=0.762.The low body weight (=< 65 kg) were 17.77% (8/45) of all female patients (see table 31).

Table (17) and table (18):

Show the descriptive statistics for all patients in the control group and Pretreatment descriptive statistics for all patients in study group (200n) in comparison with control group (100n). Both of them demonstrate: All patients in both control and study group were negative (ANA).

Table (29)

Shows history of risk factors in all patients subgroups, regarding the risk factors in study male subgroup: history of schistosomiasis and its parenteral treatment was present in 83 (53.5%) patients while 41 (26.4%) patients had surgical operations , 9 (5.8%) patients had blood transfusion, and 31 (20%) patients had undergone dental procedures. There were 9 patients had more than one risk factor. The corresponding the risk factors in control male subgroup: history of schistosomiasis and its parenteral treatment was present in 31 (40.2%) patients while 19 (24.6%) patients had surgical operations , 4 (5.1%) patients had blood transfusion, and 14 (18.1%) patients had undergone dental procedures. There were 9 patients had no one risk factor. Regarding the risk factors in study female subgroup: history of schistosomiasis and its parenteral treatment was present in 23 (51.1%) patients while 11 (24.4%) patients had surgical operations, 3 (6.6%) patients had blood transfusion, and 10 (22.2%) patients had undergone dental procedures. There were 2 patients had more than one risk factor. The

corresponding risk factors in control female subgroup: history of schistosomiasis and its parenteral treatment was present in 8 (34.7%) patients while 4 (17.3%) patients had surgical operations, 1 (4.3%) patients had blood transfusion, and 5 (21.7%) patients had undergone dental procedures. There were 5 patients had no one risk factor.

Table (19)and Table (20):

Shows the descriptive statistics in the control group and Pretreatment descriptive statistics for patients in the study group subgroup A: Male group (155n) in comparison with control male subgroup (77n) as the following:-

Pretreatment total billirubin in male subgroup:

It varied from 0.21 to 2.3 (mean 0.78 ± 0.38) with P value=0.703 in study group while in control group it varied from 0.3 to 1.9 (mean 0.76 ± 0.35).

Follow up of treatment male subgroup:

In 155 male patients, the mean total billirubin as one of indicator of hemolysis before treatment was 0.78mg/dl ±0.38 (0.21-2.3) with P value=0.701, mean total billirubin after 2 weeks= 1.12mg/dl ±0.56(0.31-3.9) with P value=0.001,mean total billirubin after 4 weeks= 0.95mg/dl ±0.38(0.1-2.2) with P value=0.022, mean total billirubin after 12 weeks 0.89mg/dl ±0.34(0.31-2.1) with P value=0.034 (see table 24), while the rise of mean total billirubin was 0.34mg/dl ±0.47 at 2 week and 0.17mg/dl ±0.38 at 4week and 0.11 mg/dl ±0.36 at 12 week.(table 40)

Pretreatment Albumin in male subgroup:

It varied between 2.9 to 5 (mean 4.651 ± 0.305) with P value=0.365 in study group while in control group it varied from 3.5 to 5.5 (mean 4.47 ± 0.37).

Pretreatment Alkaline Phosphatase in male subgroup:

It varied between 40 to 129 (mean 81.38 ± 22.23) with P value=0.479 in study group while in control group it varied between 38 to 129 (mean 81.96 ± 23.89).

Pretreatment AST in male subgroup:

It varied from 19 to 229 (mean 49.91 ± 34.44) with P value=0.069 in study group while in control group it varied between 10 to 183 (mean 51.81 ± 32.27).

Pretreatment ALT in male subgroup:

It varied from 12 to 332 (mean 68.29 ± 49.32) with P value=0.049 in study group while in control group it varied between 10 to 191 (mean 59.07 ± 33.28).

Pretreatment Prothrombin time% in male subgroup:

It varied from 62 to 100 (mean 85.05 ± 6.97) with P value=0.164 in study group while in control group it varied between 64 to 100 (mean 83.67 ± 7.62).

Pretreatment TSH in male subgroup:

It varied between 0.46 to 5.17 (mean 1.66 ± 0.834) with P value=0.321 in study group while in control group it varied between 0.41 to 5.9 (mean 1.62 ± 0.956)

Pretreatment PCR of HCV-RNA in male subgroup:

It varied from 1500 to 2900000 (mean 461919 ± 560386) with P value=0.327 in study group while in control group it varied between 6000 to 2939594 (mean 376466 ± 575624)

Pretreatment WBC in male subgroup:

It varied between 3900 to 12760 (mean 6862 ± 1901) with P value=0.178 in study group while in control group it varied between 3800 to 12970 (mean 6504 ± 1908)

Pretreatment platelets in male subgroup:

It varied from 81000 to 398000 (mean 217000 ± 58150) with P value=0.019 in study group while in control group it varied from 80000 to 421000 (mean 199320 ± 59970). The Pretreatment percent of low platelet counts (<150000/mm^3) was 9.67% (15/155n). (See table 32)

Pretreatment Hb in male subgroup:

It varied from 13 to 19.69 (mean 14.891 ± 1.05) with P value=0.562 in study group while in control group it varied between 13 to 17.8 (mean 14.76 ± 1.211). The baseline hemoglobin level (>= 14 g/dl) were 81.9% (127/155) of all study male patients.

Follow up of treatment male subgroup :

In 155 male patients, the mean Hb% before treatment was 14.89 g/dl ±1.05 (13-19.6) with P value=0.590, mean Hb% after 2 weeks 13.7g/dl ±1.5 (8.5-19.3) with P value=0.088. This previous change is statistically insignificant since (P>0.05). the mean Hb% after 4 weeks 12.7g/dl ±1.4(9.5-18.6) with P value=0.002 , mean Hb% after 8 weeks 12.2g/dl ±1.5(8.8-15.9) with P value=0.002 . This previous change is statistically significant since (P<0.05). the mean Hb% after 12 weeks 11.9 g/dl ±1.3(8.3-15.2) with P value=0.001. At 20 week mean Hb% 11.6 g/dl ±1.3(8.4-14.7) with P value=0.001. At 24 week mean Hb% 11.8 g/dl ±1.3(7.4-15) with P value=0.001 that rise slightly from 20 week, at 28 week mean Hb% 11.3 g/dl ±1.4(8-14.6) with P value=0.001. at 36 week mean Hb% 11.3 g/dl ±1.4(4.7-14.3) with P value=0.001, at 48 week mean Hb% 11.4 g/dl ±1.4(8-16) with

P value=0.001.This previous change from 12th week to 48th week is statistically highly significant since(P<0.001) (table 24).

There was a mean Hb drop of 1.2g/dl ±1.2 at 2 week and 2.2 g/dl ±1.2 at 4week and 2.7 g/dl ±1.2 at 8 week and 3.0 g/dl ±1.1 at 12 week and 3.3 g/dl ±1.1 at 20 week of antiviral therapy .The mean minimum hemoglobin level was 11.6 ± 1.3 g/dl through first 24 weeks treatment, and the mean maximum decrease of hemoglobin was 3.3 ± 1.1 g/dl through first 24 weeks treatment. the mean maximum decrease of hemoglobin was 3.55 ± 1.2 g/dl at week 28 through 48 weeks treatment . The drop of Hb in first month of treatment is 61.9% and in 2nd plus 3rd months of treatment was 22.5% in relation to the mean maximum Hb% drop during the complete period of treatment. So the main problem in dropping of Hb% was present often in the first three months of treatment as 83.5% in male subgroup subgroup.(see table 40).

Clinically significant anemia(Hb<11 g/dl) occurred in 21.2% of all male patients (33 /155) at 12 week and it was raised to 24.5% of all male patients (38/155) at week 24 and to 36.7% of all male patients (57/155) at week 36 and decreased to 25.8% of all male patients (40/155) at week 48. In male patients , the percent of anemic patients (< 10 g/dl) maximally reaches to 33.5% (52/155), while the percent of severe anemia (< 8.5 g/dl) maximally reaches to 5.1% (8/155) of all study male patients during treatment. All patients that need to stop ribavirin treatment (Hb% < 8.5 g/dl) start at 20th week until 40th week (see tables 35, 37, 38).

Table (21)and Table (22):

Shows the descriptive statistics in the control group and Pretreatment descriptive statistics for patients in the study group subgroup B: Female

group (45n) in comparison with control female subgroup (23n) as the following:-

Pretreatment total billirubin in female subgroup:

It varied from 0.32 to 9.8 (mean 0.596 ± 0.184) with P value= 0.745 in study group while in control group it varied from 0.31 to 1.6 (mean 0.661 ± 0.28).

Follow up of treatment in female subgroup:

In 45 female patients, the mean total billirubin as one of indicator of hemolysis before treatment was 0.59mg/dl ±0.18 (0.32-0.98) with P value= 0.744 , mean total billirubin after 2 weeks 0.93mg/dl ±0.30 (0.38-1.59) with P value= 0.001 ,mean total billirubin after 4 weeks 0.86mg/dl ±0.26(0.35-1.6) with P value= 0.001 , mean total billirubin after 12 weeks 0.70mg/dl ±0.27(0.14-1.41) with P value= 0.098(see table 27). There was a mean total billirubin rise of 0.34mg/dl ±0.24 at 2 week and 0.27mg/dl ±0.22 at 4week and 0.11 mg/dl ±0.22 at 12 week.(table 40)

Pretreatment Albumin in female subgroup:

It varied from 3.6 to 4.9 (mean 4.442 ± 0.307) with P value= 0.251 in study group while in control group it varied from 3.4 to 5 (mean 4.43 ± 0.4).

Pretreatment Alkaline Phosphatase in female subgroup:

It varied from 36 to 129 (mean 74.55 ± 24.9) with P value= 0.634 in study group while in control group it varied from 42 to 122 (mean 78.14 ± 25.99).

Pretreatment AST in female subgroup:

It varied from 14 to 243 (mean 50.213 ± 41.38) with P value= 0.584 in study group while in control group it varied from 23.3 to 146.6 (mean 55.41 ± 26.25).

Pretreatment ALT in female subgroup:

It varied from 13 to 304 (mean 58.404 ± 51.6) with P value= 0.099 in study group while in control group it varied from 30 to 135 (mean 58.53 ± 24.01).

Pretreatment Prothrombin time% in female subgroup:

It varied from 64 to 96 (mean 83.451 ± 7.268) with P value= 0.217 in study group while in control group it varied from 70 to 100 (mean 83.43 ± 6.8).

Pretreatment TSH in female subgroup:

It varied from 1.739 to 0.986 (mean 0.56 ± 5.56) with P value= 0.658 in study group while in control group it varied from 0.52 to 7.83 (mean 1.71 ± 1.51)

Pretreatment PCR of HCV-RNA in female subgroup:

It varied from 1300 to 2400000 (mean 275480 ± 405666) with P value= 0.066 in study group while in control group it varied from 3600 to 2100000 (mean 246873 ± 442168)

Pretreatment WBC in female subgroup:

It varied from 4100 to 11300 (mean 7089 ± 1886) with P value= 0.087 in study group while in control group it varied from 3900 to 11740 (mean 6636 ± 2380)

Pretreatment platelets in female subgroup:

It varied from 82000 to 339000 (mean 226955 ± 58922) with P value= 0.079 in study group while in control group it varied from 120000 to 363000 (mean 225260 ± 59410). Pretreatment percent of low platelet counts (<150000/mm^3) was 11.11% (5/45n). (See table 32).

Pretreatment Hb in female subgroup:

It varied from 11 to 15.6 (mean 12.92 ± 1.08) with P value= 0.385 in study group while in control group it varied from 11 to 14.9 (mean 12.76 ±

1.07). The baseline hemoglobin level (>= 12 g/dl) were 80% (36/45) of all study female patients.

Follow up of treatment in female subgroup:

In 45 female patients, the mean Hb% before treatment was 12.92 g/dl ±1.08 (11-15.6) with P value= 0.387 , mean Hb% after 2 weeks 11.9g/dl ±1.1 (9.2-14) with P value= 0.071. This change is statistically insignificant since (P>0.05). the mean Hb% after 4 weeks 11.3g/dl ±1.1(8.7-13.8) with P value= 0.050, mean Hb% after 8 weeks 10.96 g/dl ±1.1(9.3-13.1) with P value= 0.007 , mean Hb% after 12 weeks 10.91 g/dl ±0.8(8.9-13.8) with P value= 0.007. At 20 week mean Hb% 10.5 g/dl ±1.2 (8.8-16.2) with P value= 0.005. This change is statistically significant since(P<0.05) At 24 week mean Hb% 10.6 g/dl ±0.9(8.2-12.4) with P value= 0.001 that rise slightly from 20 week, at 28 week mean Hb% 10.3 g/dl ±1.2(8-12.9) with P value= 0.001, at 36 week mean Hb% 10.2 g/dl ±1.3(4.8-13) with P value= 0.001 and at 48 week mean Hb% 10.5 g/dl ±1.2(8.6-16.6) with P value= 0.001,so this previous change from 24 week to 48 week is statistically highly significant since(P<0.001). (See table 25).

There was a mean Hb drop of 1.0 g/dl ±1.0 at 2 week and 1.6 g/dl ±1.1 at 4week, and 2.0 g/dl ±1.09 at 8 week, and 2.01 g/dl ±1.05 at 12 week and 2.4 g/dl ±1.1 at 20 week of antiviral therapy The mean minimum hemoglobin level was 10.5 ± 1.2 g/dl, and the mean maximum decrease of hemoglobin was 2.4 ± 1.1 g/dl through first 24 weeks treatment. the mean maximum decrease of hemoglobin was 2.8 ± 1.1 g/dl and in 2^{nd} plus 3^{rd} months of treatment was 14.6% in relation to the mean maximum Hb% drop during the complete period of treatment. So the main problem in dropping of Hb% was present often in the first three months of treatment 71.6% in female subgroup.(see table 40).

Clinically significant anemia(Hb<11 g/dl) occurred in 53.3% of all female patients (24 /45) at 12 week and it was raised to 60% of all female patients (27/45) at week 24 and to 73.3% of all female patients (33/45) at week 36 and decreased to 66.6% of all female patients (30/45) at week 48. In female patients, the percent of anemic patients (< 10 g/dl) maximally reaches to 53.3% (24/45), while the percent of severe anemia (< 8.5 g/dl) maximally reaches to 22.2% (10/45) of all study male patients during treatment. All patients that need to stop ribavirin treatment (Hb% < 8.5 g/dl) start at 16th week until 44th week of all study female patients during treatment (see tables 35, 37, 39).

By comparing the results of each subgroup to each other, the mean Hb drop rate is more in males than female subgroup, as shown in (table 40).

By comparing the results of each subgroup to each other, the mean total billirubin rise rate is similar to each other in males than female subgroup, as shown in (table 41).

At the end of treatment, the Percent of anemia (Hb<13 g/dl) in male patients is 79.3% and in female patients (Hb<11 g/dl) is 66.6%, but the Percent of severe anemia (Hb<10 g/dl) in male patients is 9.67% and in female patients is 26.6% (see tables 34, 35, 36).

In figure 5:

It shows chart of Mean Hb% and Mean Total billirubin(x10) thorough out of treatment for all patients. chart Mean Total billirubin(x10) was increasing from date 0 to 2nd week, while chart of Mean Hb% was decreasing from date 0 to 2nd week in relation to each other. Then both charts take nearly the same curve of decreasing to end of treatment.

Table 17: Descriptive statistics for all patients in the control group(100n) :

Parameter		Mean	± SD	Min	Max
Age		40.5	± 10.2	20	59
Weight		81.53	± 14.2	54	117
Total billirubin(0.1-1)		0.74	± 0.34	0.3	1.9
Albumin (3.2-4.5)		4.47	± 0.37	3.4	5.3
Alkaline phosphates(30-129)		81.09	± 14.2	38	129
AST(up to 40)		52.64	± 10.91	10	183
ALT(up to 40)		58.95	± 9.28	10	191
Prothrombin time %		83.62	± 7.41	64	100
WBC		6535	± 1011	3800	12970
Hb		14.3	± 1.45	11	17.8
Plt /1000		205.29	± 60.55	80	421
TSH (0.4-5.7)		١.64	± 0.66	0.41	7.83
PCR of HCV-RNA		346660	±54847	3600	2939594
Biopsy	**A**	1.58	±0.727	1	3
	F	1.84	±0.748	1	4
ANA		negative			

Table 18: Pretreatment descriptive statistics for all patients in study group(200n) in comparison with control group(100n):

Parameter		Mean	± SD	Min	Max	t. test	p. value
Age		38.625	± 9.6	20	63	**1.58**	**0.114**
Weight		82.25	± 15.386	50	125	**1.12**	**0.528**
Total billirubin		0.743	± 0.356	0.21	2.3	**0.85**	**0.652**
Albumin		4.569	± 0.485	0.48	5	**1.41**	**0.158**
Alkaline phosphates		79.84	± 22.97	36	129	**0.72**	**0.473**
AST		52.055	± 17.145	12.444	294.545	**0.11**	**0.90**
ALT		87.710	± 29.175	10.11	4120	**7.81**	**0.001**
Prothrombin time %		84.692	± 7.058	62	100	**1.08**	**0.279**
WBC		6913	± 1895	3900	12760	**1.59**	**0.111**
Hb		14.532	± 1.385	11	19.69	**1.22**	**0.325**
Plt /1000		219.315	± 58.32	81	398	**1.95**	**0.050**
TSH		1.679	± 0.868	0.46	5.56	**0.99**	**0.325**
PCR of HCV-RNA		419970	±53420	1300	2900000	**1.11**	**0.325**
Biopsy	**A**	1.692	0.63	1	3	**1.63**	**0.179**
	F	1.85	0.67	1	3	**1.21**	**0.906**
ANA		negative					

Table 19: Descriptive statistics for patients in the control group subgroup A: male patients(77n) .

Parameter		**Mean**	**± SD**	**Min**	**Max**
Age		40.06	± 10.54	20	59
Weight		81.93	± 14.20	59	117
Total billirubin		0.76	± 0.35	0.3	1.9
Albumin		4.48	± 0.36	3.5	5.3
Alkaline phosphates		81.96	± 23.89	38	129
AST		51.81	± 12.27	10	183
ALT		59.07	± 18.28	10	191
Prothrombin time %		83.67	± 7.62	64	100
WBC		6504	± 1908	3800	12970
Hb		14.76	± 1.211	13	17.8
Plt /1000		199.32	± 59.97	80	421
TSH		1.62	± 0.956	0.41	5.9
PCR of HCV-RNA		376466	± 57524	6000	2939594
Biopsy	**A**	1.571	±0.733	1	3
	F	1.831	±0.75	1	4

Table 20 : Pretreatment descriptive statistics for patients in the study group subgroup A: Male group(155n) in comparison with control male subgroup(77n).

Parameter		**Mean**	**± SD**	**Min**	**Max**	**t. test**	**p. value**
Age		37.684	± 9.568	20	63	**2.18**	**0.030**
Weight		83.27	± 15.08	50	125	**0.561**	**0.571**
Total billirubin		0.786	± 0.382	0.21	2.3	**0.384**	**0.703**
Albumin		4.634	± 0.399	1.4	5	**0.421**	**0.365**
Alkaline phosphates		81.381	± 17.231	40	129	**0.963**	**0.479**
AST		49.912	± 11.443	19	229	**1.523**	**0.069**
ALT		68.297	± 18.326	12	332	**1.996**	**0.049**
Prothrombin time %		85.052	± 16.978	62	100	**1.46**	**0.164**
WBC		6862	± 1901	3900	12760	**1.35**	**0.178**
Hb		14.891	±1.05	13	19.69	**0.885**	**0.562**
Plt /1000		217	± 58.15	81	398	**2.325**	**0.019**
TSH		1.662	± 0.834	0.460	5.17	**0.756**	**0.321**
PCR of HCV-RNA		461919	± 56086	1500	2900000	**0.981**	**0.327**
Biopsy	**A**	1.727	0.647	1	3	**0.160**	**0.110**
	F	1.867	0.640	1	3	**0.321**	**0.451**

Table 21 :Descriptive statistics for patients in the control group subgroup B: female patients(23n).

Parameter		**Mean**	**± SD**	**Min**	**Max**
Age		42.04	± 8.992	22	56
Weight		80.17	± 14.42	54	110
Total billirubin		0.661	± 0.28	0.31	1.6
Albumin		4.43	± 0.4	3.4	5
Alkaline phosphates		78.14	± 16.99	42	122
AST/40		55.41	±16.25	23.33	146.67
ALT/40		58.53	± 14.01	30	135
Prothrombin time %		83.43	± 6.8	70	100
WBC		6636	± 2380	3900	11740
Hb		12.76	± 1.07	11	14.9
Plt /1000		225.26	± 59.41	120	363
TSH		1.71	± 1.51	0.52	7.83
PCR of HCV-RNA		246873	± 44268	3600	2100000
Biopsy	**A**	1.608	±0.722	1	3
	F	1.869	±0.757	1	3

Table 22 : Pretreatment descriptive statistics for patients in the study group subgroup B: Female group (45n) in comparison with control female subgroup (23n).

Parameter		Mean	± SD	Min	Max	t. test	p. value
Age		41.867	±9.116	23	58	**0.271**	**0.791**
Weight		78.733	±16.075	50	124	**0.582**	**0.762**
Total billirubin		0.596	±0.184	0.32	0.98	**0.685**	**0.745**
Albumin		4.442	±0.307	3.6	4.9	**0.441**	**0.251**
Alkaline phosphates		74.55	±14.9	36	129	**0.481**	**0.634**
AST		50.213	±11.38	14	243	**0.554**	**0.584**
ALT		58.404	±51.6	13	304	**0.471**	**0.099**
Prothrombin time %		83.451	±7.268	64	96	**0.223**	**0.217**
WBC		7089	±1886	4100	11300	**1.112**	**0.087**
Hb		12.92	±1.08	11	15.6	**0.880**	**0.385**
Plt /1000		226.955	± 58.922	82	339	**1.528**	**0.079**
TSH		1.739	± 0.986	0.56	5.56	**0.896**	**0.658**
PCR of HCV-RNA		275480	± 40566	1300	2400000	**1.550**	**0.066**
Biopsy	**A**	1.5	0.707	1	2	**0.55**	**0.582**
	F	1.8	0.836	1	3	**0.29**	**0.771**

Table 23: Follow up of Hb% through treatment for all patients of study group(200n) in comparison with control group(100n).

Hb% from start of treatment	**Mean**	**± SD**	**Min**	**Max**	**t. test**	**P. value**
Hb at Date 0	14.463	±1.424	10.2	17.9	**1.37**	**0.172**
Hb at week1	13.767	±1.717	9	17.5	**2.99**	**0.048**
Hb at week2	13.265	±1.627	8.5	19.3	**4.96**	**0.045**
Hb at week4	12.386	±1.522	8.7	18.6	**16.1**	**0.001**
Hb at week8	11.893	±1.539	8.8	15.9	**20.3**	**0.001**
Hb at week12	11.741	±1.324	8.3	15.2	**21.5**	**0.001**
Hb at week16	11.555	±1.404	8.3	14.6	**19.6**	**0.001**
Hb at week20	11.372	±1.424	8.4	16.2	**20.4**	**0.001**
Hb at week24	11.604	±1.377	7.4	15	**18.7**	**0.001**
Hb at week28	11.111	±1.481	8	14.6	**15.7**	**0.001**
Hb at week32	11.241	±1.416	7.4	15	**20.9**	**0.001**
Hb at week36	11.087	±1.514	4.7	14.3	**21.5**	**0.001**
Hb at week40	11.258	±1.584	4.2	18	**22.6**	**0.001**
Hb at week44	11.217	±1.452	7.3	15.4	**22.8**	**0.001**
Hb at week48	11.474	±1.479	8	16.9	**20.3**	**0.001**

Table 24: Follow up of Hb% through treatment for patients of study group subgroup A: Male patients(155n) in comparison with control male subgroup(77n).

Hb% from start of treatment	Mean	± SD	Min	Max	t. test	p. value
Hb at Date 0	14.899	±1.175	10.6	17.9	**0.542**	**0.590**
Hb at week1	14.205	±1.602	9.2	17.5	**0.635**	**0.482**
Hb at week2	13.704	±1.511	8.5	19.3	**1.214**	**0.088**
Hb at week4	12.685	±1.498	9.5	18.6	**9.921**	**0.002**
Hb at week8	12.200	±1.547	8.8	15.9	**7.325**	**0.002**
Hb at week12	11.982	±1.342	8.3	15.2	**13.89**	**0.001**
Hb at week16	11.813	±1.422	8.3	14.6	**12.352**	**0.001**
Hb at week20	11.616	±1.373	8.4	14.7	**11.471**	**0.001**
Hb at week24	11.895	±1.346	7.4	15	**13.586**	**0.001**
Hb at week28	11.323	±1.490	8	14.6	**14.528**	**0.001**
Hb at week32	11.519	±1.385	7.6	15	**10.235**	**0.001**
Hb at week36	11.340	±1.481	4.7	14.3	**11.564**	**0.001**
Hb at week40	11.566	±1.536	8.1	18	**11.749**	**0.001**
Hb at week44	11.468	±1.444	8.2	15.4	**10.336**	**0.001**
Hb at week48	11.754	±1.414	8	16	**11.528**	**0.001**

Table 25 : Follow up of Hb% through treatment for patients of study group subgroup B: Female patients(45n) in comparison with control female subgroup (23n).

Hb% from start of treatment	Mean	± SD	Min	Max	t. test	p. value
Hb at Date 0	12.96	±1.17	10.2	15.6	**0.871**	**0.387**
Hb at week1	12.31	±1.22	9	15	**0.658**	**0.885**
Hb at week2	11.902	±1.16	9.2	14	**1.110**	**0.071**
Hb at week4	11.342	±1.101	8.7	13.8	**1.252**	**0.050**
Hb at week8	10.973	±1.123	9.3	13.1	**4.262**	**0.007**
Hb at week12	10.917	±0.859	8.9	13.8	**5.214**	**0.007**
Hb at week16	10.923	±1.183	9	12.8	**6.658**	**0.009**
Hb at week20	10.542	±1.291	8.8	16.2	**5.474**	**0.005**
Hb at week24	10.602	±0.955	8.2	12.4	**8.654**	**0.001**
Hb at week28	10.384	±1.205	8	12.9	**4.852**	**0.001**
Hb at week32	10.289	±1.078	7.4	12.5	**6.328**	**0.001**
Hb at week36	10.216	±1.305	4.8	13	**5.369**	**0.001**
Hb at week40	10.196	±1.27	4.2	12.4	**6.214**	**0.001**
Hb at week44	10.357	±1.127	7.3	13.2	**5.870**	**0.001**
Hb at week48	10.51	±1.294	8.6	16.9	**5.811**	**0.001**

Table 26: Follow up of total billirubin through out of treatment for all patients of study group(200n) in comparison with control group(100n).

T.billubin thorough treatment	**Mean**	**± SD**	**Min**	**Max**	**t. test**	**p. value**
T.billirubin at date0	0.719	±0.304	0.19	1.7	**0.80**	**0.425**
T.billirubin at week1	0.872	±0.465	0.2	3.5	**3.97**	**0.01**
T.billirubin at week2	1.078	±0.518	0.31	3.9	**3.85**	**0.001**
T.billirubin at week4	0.936	±0.366	0.1	2.2	**3.22**	**0.025**
T.billirubin at week8	0.933	±0.335	0.14	1.8	**3.85**	**0.029**
T.billirubin at week12	0.855	±0.337	0.3	2.1	**2.52**	**0.041**
T.billirubin at week16	0.827	±0.265	0.47	1.69	**1.585**	**0.059**
T.billirubin at week20	0.836	±0.282	0.3	1.9	**1.447**	**0.049**
T.billirubin at week24	0.845	±0.347	0.15	2.5	**2.11**	**0.045**
T.billirubin at week28	0.819	±0.394	0.12	4.8	**2.34**	**0.061**
T.billirubin at week32	0.837	±0.308	0.25	2.91	**2.44**	**0.055**
T.billirubin at week36	0.836	±0.285	0.27	2.3	**2.77**	**0.072**
T.billirubin at week40	0.809	±0.289	0.14	2.4	**1.55**	**0.12**
T.billirubin at week44	0.826	±0.33	0.05	2.7	**1.63**	**0.095**
T.billirubin at week48	0.835	±0.417	0.16	3.9	**2.76**	**0.091**

Table 27: Follow up of total billirubin thorough treatment of patients subgroup A: Male patients (155n)in comparison with control male subgroup(77n).

T.billubin thorough treatment	**Mean**	**± SD**	**Min**	**Max**	**t. test**	**p. value**
T.billirubin at date0	0.752	±0.324	0.190	1.700	**0.376**	**0.701**
T.billirubin at week1	0.894	±0.450	0.200	2.800	**2.252**	**0.010**
T.billirubin at week2	1.123	±0.565	0.310	3.900	**3.256**	**0.001**
T.billirubin at week4	0.957	±0.389	0.100	2.200	**2.331**	**0.022**
T.billirubin at week8	0.988	±0.339	0.350	1.800	**1.885**	**0.025**
T.billirubin at week12	0.892	±0.348	0.310	2.100	**1.966**	**0.034**
T.billirubin at week16	0.839	±0.294	0.470	1.690	**1.112**	**0.041**
T.billirubin at week20	0.860	±0.292	0.340	1.900	**0.865**	**0.057**
T.billirubin at week24	0.891	±0.364	0.150	2.500	**1.963**	**0.049**
T.billirubin at week28	0.849	±0.431	0.120	4.800	**0.741**	**0.058**
T.billirubin at week32	0.863	±0.326	0.250	2.910	**0.856**	**0.651**
T.billirubin at week36	0.866	±0.289	0.310	2.300	**0.778**	**0.055**
T.billirubin at week40	0.820	±0.273	0.220	1.800	**0.558**	**0.112**
T.billirubin at week44	0.844	±0.311	0.170	2.150	**0.621**	**0.324**
T.billirubin at week48	0.872	±0.454	0.160	3.900	**1.524**	**0.052**

Table 28: Follow up of total billirubin thorough treatment of patients subgroup B: Female patients(45n) in comparison with control female subgroup(23n).

T.billubin thorough treatment	Mean	± SD	Min	Max	t. test	p. value
T.billirubin at date0	0.608	±0.188	0.32	0.98	**0.683**	**0.744**
T.billirubin at week 1	0.8	±0.512	0.2	3.5	**2.11**	**0.002**
T.billirubin at week 2	0.938	±0.306	0.38	1.59	**2.965**	**0.001**
T.billirubin at week 4	0.867	±0.268	0.35	1.6	**2.014**	**0.001**
T.billirubin at week 8	0.77	±0.274	0.14	1.41	**2.418**	**0.014**
T.billirubin at week12	0.73	±0.265	0.3	1.7	**0.688**	**0.098**
T.billirubin at week16	0.802	±0.192	0.54	1.2	**2.144**	**0.014**
T.billirubin at week20	0.753	±0.23	0.3	1.2	**2.554**	**0.043**
T.billirubin at week24	0.692	±0.229	0.32	1.4	**0.749**	**0.602**
T.billirubin at week28	0.717	±0.203	0.36	1.2	**0.853**	**0.324**
T.billirubin at week32	0.748	±0.22	0.31	1.2	**1.421**	**0.050**
T.billirubin at week36	0.732	±0.245	0.27	1.3	**1.371**	**0.067**
T.billirubin at week40	0.773	±0.342	0.14	2.4	**2.191**	**0.029**
T.billirubin at week44	0.767	±0.388	0.05	2.7	**2.147**	**0.047**
T.billirubin at week48	0.71	±0.216	0.31	1.3	**0.871**	**0.159**

History	Study male(155n)		Study female(45)		control male(77n)		Control female(23)	
	+ve	%	+ve	%	+ve	%	+ve	%
schistesomiasis	83	53.5	23	51.1	27	35	8	34.7
operations	41	26.4	11	24.4	19	24.6	4	17.3
Blood transfusion	9	5.8	3	6.6	4	5.1	1	4.3
Dental procedures	31	20	10	22.2	12	15.5	5	21.7

Table 29:History of risk factors in all patients subgroups.

study group.	Number of old ages	Number of all subgroup	Percent to all subgroup patients
Male subgroup (>= 50 years)	19	**155**	12.25%
Female subgroup (>= 50years)	10	45	22.22%

Table 30:Percent of old ages patients.

Pretreatment of Study group	Number of Low body weight	Number of all subgroup	Percent to all subgroup patients
Male subgroup (=< 65 kg)	19	155	12.25%
Female subgroup (=< 65 kg)	8	45	17.77%

Table 31: Pretreatment percent of Low body weight patients.

Pretreatment of Study group	Number of low Pretreatment platelet counts	Number of all subgroup	Percent to all subgroup patients
Pretreatment male subgroup platelet counts (<150000/mm^3)	15	155	9.67%
Pretreatment female subgroup platelet counts (<150000/mm^3)	5	45	11.11%

Table 32: Pretreatment percent of low platelet counts (<150000/mm^3)

Pretreatment of study group.	Number of baseline hemoglobin level	Number of all subgroup	Percent to all subgroup patients
Male subgroup (Hb% >= 14 g/dl)	127	**155**	81.9%
Male subgroup (Hb%=13-14 g/dl)	28	**155**	18.1%
Female subgroup (Hb%>= 12 g/dl)	36	45	80%
Female subgroup (Hb%=11-12 g/dl)	9	45	20%

Table 33: Pretreatment percent of baseline hemoglobin level patients.

Male study group.	Number of anemia (Hb<13 g/dl) in male patients	Percent to all subgroup male patients (155)
At 4 week	97	62.5%
At 12week	117	75.4%
At 24week	125	80.6%
At 36week	139	89.6%
At 48week	123	79.3%

Table 34:Percent of anemia (Hb<13 g/dl) in male patients.

Study group.	Number of anemia (Hb<11 g/dl) in male	Percent to all male subgroup patients(155)	Number of anemia (Hb<11 g/dl) in female	Percent to all female subgroup patients (45)
At4week	16	10.3%	16	35.5%
At12week	33	21.2%	24	53.3%
At24week	38	24.5%	27	60%
At36week	57	36.7%	33	73.3%
At48week	40	25.8%	30	66.6%

Table 35:Percent of Clinically significant anemia (Hb<11 g/dl) in all patients.

Study group.	Number of anemia (Hb<10 g/dl) in male	Percent to all male subgroup patients(155)	Number of anemia (Hb<10 g/dl) in female	Percent to all female subgroup patients (45)
At4week	2	1.29%	5	11.1%
At12week	5	3.2%	5	11.1%
At24week	11	7 %	8	17.7%
At36week	26	16.7%	18	40%
At48week	15	9.67%	12	26.6%

Table 36:Percent of anemia (Hb<10 g/dl) in all patients.

study groups	Number of male patients	Percent to all male patients (155)	Number of female patients	Percent to all female patients (45)
Anemia (< 10 g/dl)	**52**	**33.5%**	**24**	**53.3%**
anemia (< 8.5g/dl)	**8**	**5.1%**	**10**	**22.2%**

Table 37:Percent of anemic patients (Hb<10 g/dl and < 8.5g/dl) through out treatment in relation to all patients.

20^{th} week	24^{th} week	28^{th} week	32^{nd} week	36^{th} week	40^{th} week	Total number of patients
1	**1**	**1**	**1**	**3**	**1**	**8**

Table 38: Number of male patients that start to stop ribavirin during treatment at these weeks.

16^{th} week	24^{th} week	28^{th} week	32^{nd} week	44^{th} week	total number of patients
2	**1**	**4**	**1**	**2**	**10**

Table 39: Number of female patients that started to stop ribavirin during treatment at these weeks.

Study group.	mean Hb drop in male subgroup during treatment 155	± SD	mean Hb drop in female subgroup during treatment 45	± SD	t. test	p. value
At 2 week	1.2g/dl	±1.2	1.0 g/dl	±1.0	**1.242**	**0.068**
At 4 week	2.2 g/dl	±1.2	1.6 g/dl	±1.1	**3.104**	**0.002**
At 8 week	2.7 g/dl	±1.2	2.0 g/dl	±1.0	**3.991**	**0.001**
At 12week	3.0 g/dl	±1.1	2.01 g/dl	±1.0	**5.371**	**0.001**
At 20week	3.3 g/dl	±1.1	2.4 g/dl	±1.1	**3.251**	**0.001**
At 24week	3.0 g/dl	±1.1	2.3 g/dl	±1	**3.325**	**0.001**
At 28week	3.55 g/dl	±1.2	2.6 g/dl	±1.1	**2.996**	**0.001**
At 36week	3.53 g/dl	±1.2	2.7 g/dl	±1.1	**3.524**	**0.002**
At40week	3.33 g/dl	±1.2	2.8 g/dl	±1.1	**2.987**	**0.001**
At48week	3.1 g/dl	±1.2	2.4 g/dl	±1.1	**3.55**	**0.002**

Table 40:Comparison between the mean Hb drop during treatment in both male and female study subgroups.

study group.	The mean total billirubin rise in male subgroup during treatment 155	±SD	The mean total billirubin rise in female subgroup during treatment 45	±SD	t. test	p. value
At 2 week	0.34mg/dl	±0.09	0.34mg/dl	±0.06	**1.00**	**0.998**
At 4 week	0.17mg/dl	±0.08	0.27mg/dl	±0.02	**1.68**	**0.093**
At 12 week	0.11 mg/dl	±0.06	0.11 mg/dl	±0.09	**0.658**	**0.365**

Table 41:Comparison between the mean total billirubin rise during treatment in both male and female study subgroups.

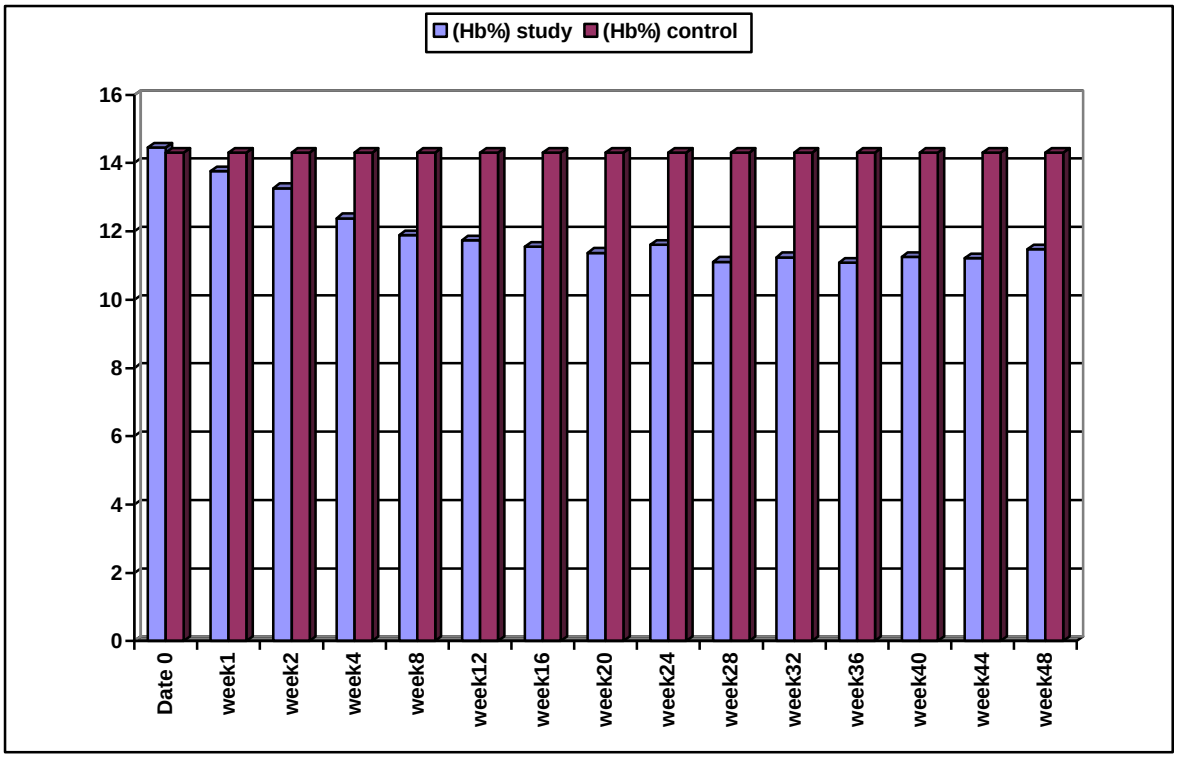

Figure 1:Chart of Hb% in study group (200n) versus control group (100n) thorough out treatment

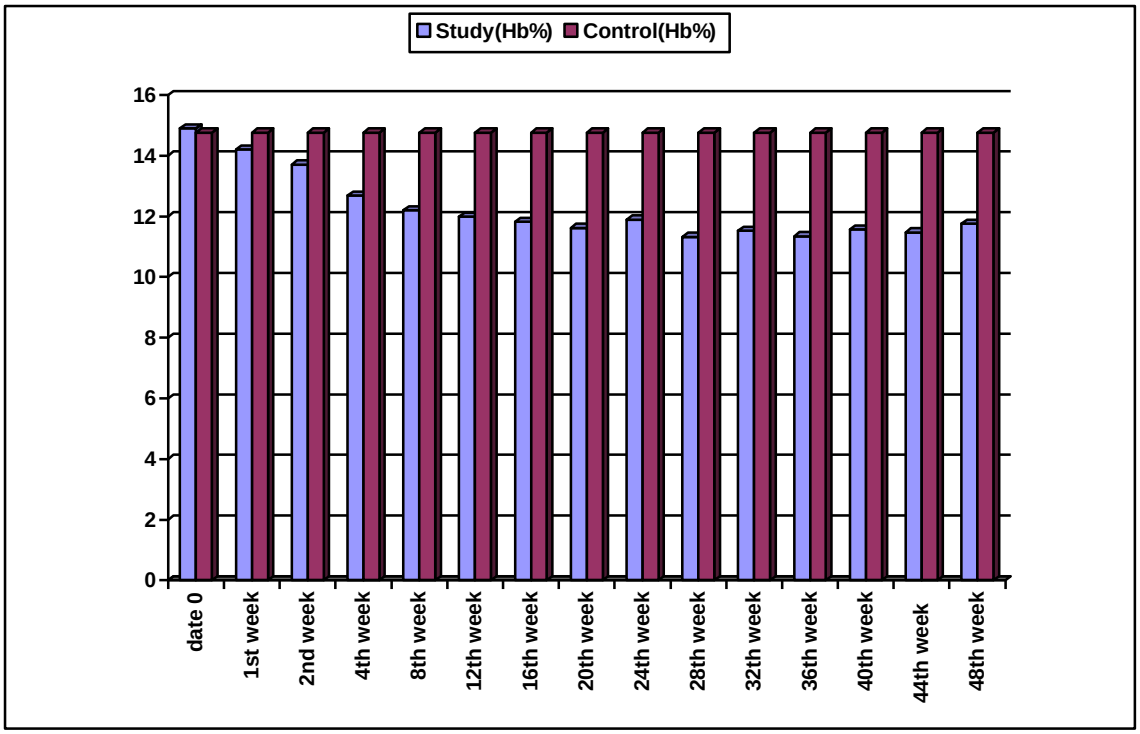

Figure 2:Chart of Hb% in control subgroup A patients(77n) versus study subgroup A patients(155n) thorough treatment of:
Male patients

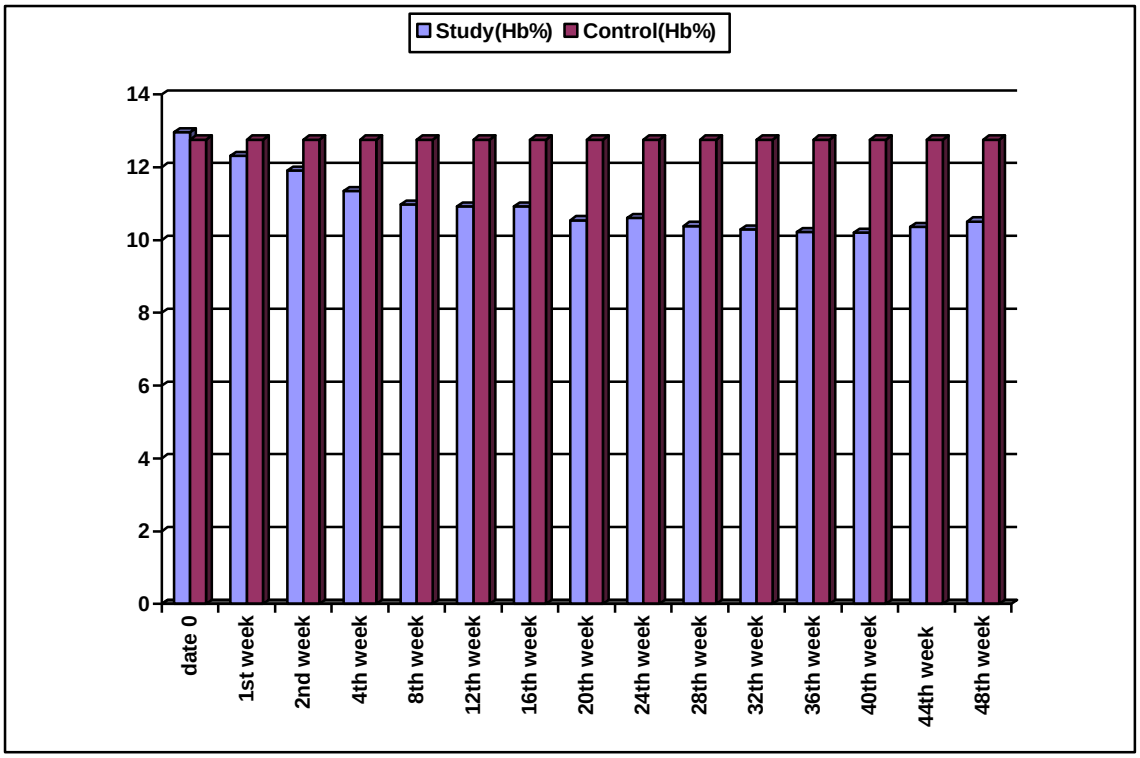

Figure 3:Chart of Hb% in control subgroup B patients(23n) versus study subgroup B patients(45n) thorough treatment of:
Female patients

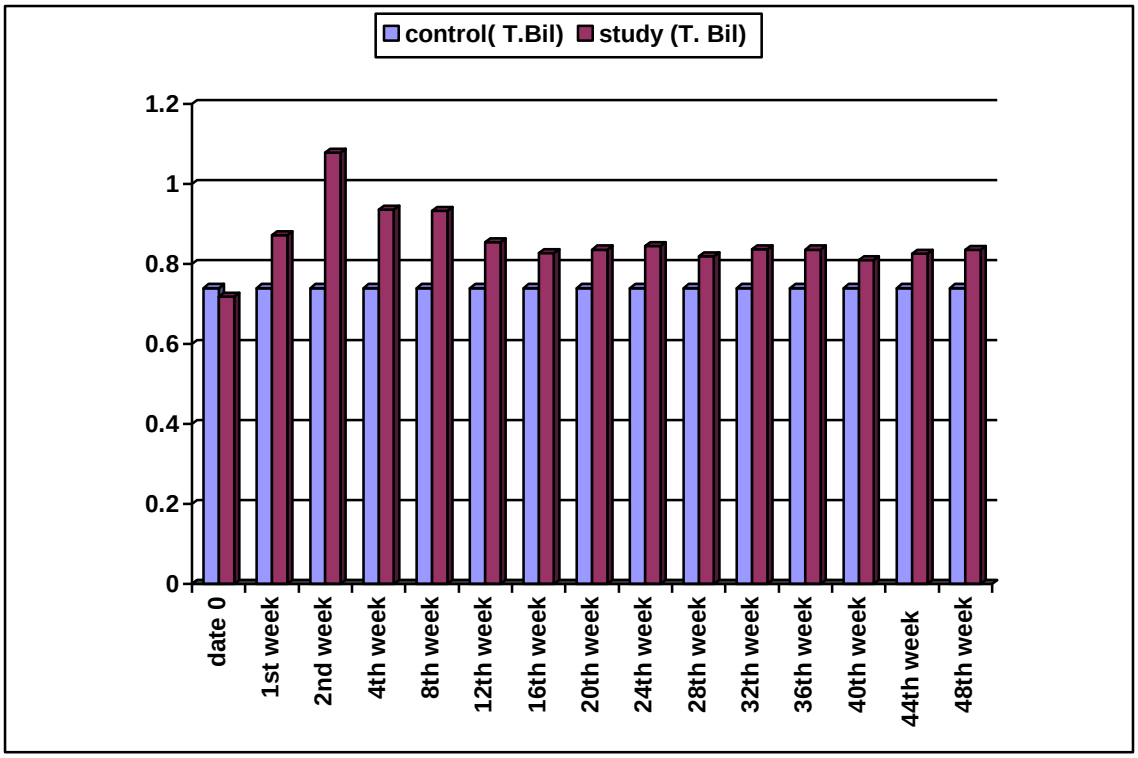

Figure 4:Chart of Mean Total billirubin in study group versus control group for all patients thorough out the treatment

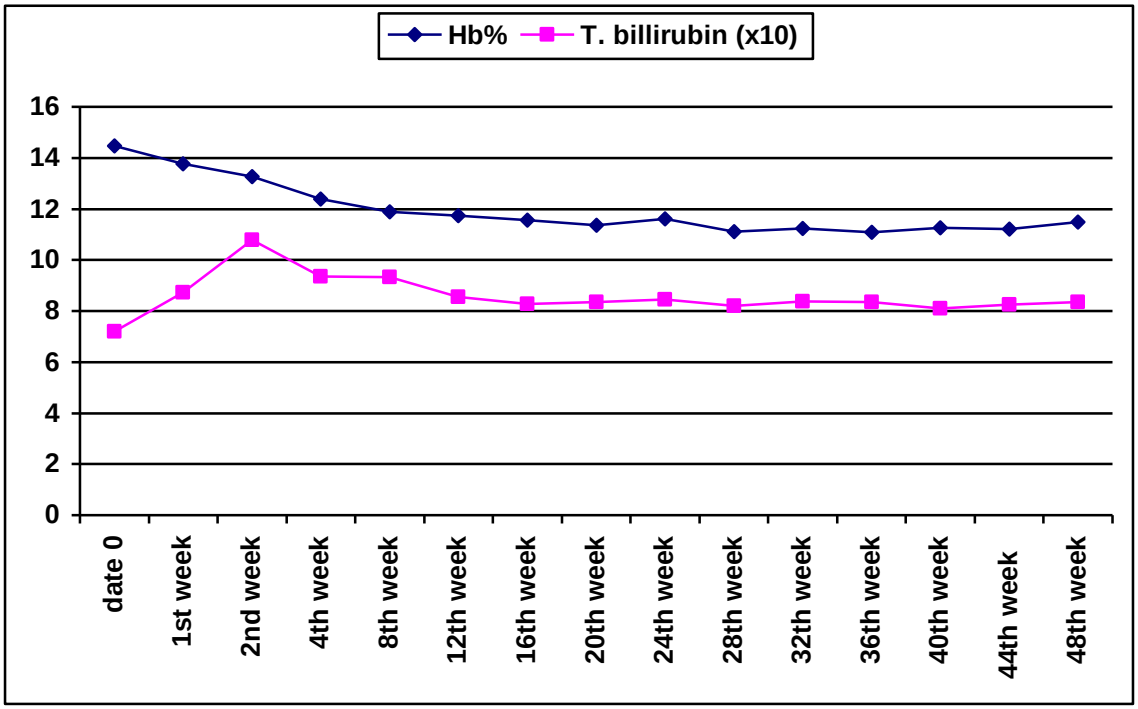

Figure 5: Chart of Mean Hb% and Mean Total billirubin(x10) thorough out of treatment for all patients