

RESULTS

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The present study included 60 patients with chronic liver disease selected from the Pediatric Hepatology Clinic, New Children's Hospital, Cairo University. The patients were classified according to the etiology of chronic liver disease into three groups:-

Group (I) Autoimmune hepatitis

Included 30 patients with chronic autoimmune hepatitis. 13 were males (43.3%) and 17 were females (56.7%).

Group (II) viral hepatitis

Included 23 patients with chronic viral hepatitis, 14 of whom (60.9%) were males and 9 (39.1%) were females. 10 had HBV, 7 had HCV and 6 had both HBV and HCV.

Group (III) Miscellaneous group

Included 7 patients with different etiologies and hence were termed a miscellaneous group. One had Wilson's disease, another had cystic fibrosis and the third one had venoocclusive disease. The cause in the other four patients remained cryptogenic. Four of them were males (57.1%) and three were females (42.9%).

The study also included 24 healthy children of matched age and sex as a control group (Group IV).

The age of patients ranged between 1 and 16 years with a mean of 8.8 ± 4.2 years, while the age of control ranged between 1 and 17 years with a mean 7.3 ± 4.5 years. This difference was not statistically significant ($P > 0.05$) (Table 1).

Table (1) : Comparison of the mean age between patients and control groups.

	Patients (n=60)	Controls (n=24)
Range (years)	1-16	1-17
Mean + SD	8.8 ± 4.2	7.3 ± 4.5
t-value	1.4	
p-value	0.165	

In group (I) the age of patients ranged between 1 and 16, in group (II) it ranged between 2 and 13 years and in group (III) it ranged between 2 and 13 years of age. The mean ages of patients were 8.6 years, 9 years and 8.9 years in groups I, II and III respectively. There was no statistically significant difference between the groups as regards the ages of patients (Table 2).

Table (2): Comparison of the mean age between different patient groups and control group.

	Group (I) (n=30)	Group (II) (n=23)	Group (III) (n=7)	Group (IV) (n=24)
Range (years)	1-16	2-16	2-13	1-17
Mean + SD	8.6 ± 4.4	9 ± 4	8.9 ± 4.7	7.3 ± 4.5
F test	0.66			
P- value	0.58			

The percentage of male patients were 51.7 % as compared to 54.2% in control group. P-value was >0.05 (Table 3).

Male predominance was noted in group (II) 60.9 %. Female to male ratio was noted to be higher in group (I) (57.6 %). However, this difference did not reach statistically significant difference (Table 4).

Table(3): Sex distribution in patients and control groups.

	Patients (n=60)		Controls (n=24)	
	n	%	n	%
Male	31	51.7	13	54.2
Female	29	48.3	11	45.8
Chi-test	4.25			
P-value	0.64			

Table (4) : Sex distribution in different patient groups and control group.

	Group (I) (n=30)		Group (II) (n=23)		Group (III) (n=7)		Group (IV) (n=24)	
	n	%	n	%	n	%	n	%
Male	13	43.3	14	60.9	4	57.1	13	54.2
Female	17	56.7	9	39.1	3	42.9	11	45.8
Chi- test	4.25							
P- value	0.64							

Jaundice was the main complaint in most of patients in group (III) (71.4%), in group (I) it was 43.3% and in group (II) it was 30.4%. This difference was not statistically significant.

Accidentally discovered hepatosplenomegaly by a physician was noted in 33.3 % in group (I), while in groups (II) and (III) it was 17.4% and 14.3%. ($p > 0.05$).

Abdominal distension was the main presenting symptom in 20%, 26.1% and 14.3% of patients in groups (I), (II), and (III) respectively. This difference was not statistically significant ($p > 0.05$).

Accidentally discovered increased liver enzymes was noted only in group (II) in 17.4% of cases. This was statistically highly significant ($p < 0.05$).

Only 3.3% of group (I) and 8.7% of group (II) presented with hematemesis and melena. This difference was not statistically significant ($p > 0.05$) Table (5).

Table (5): Comparison of the complaint between different patient groups.

	Group (I) (n=30)		Group (II) (n=23)		Group (III) (n=7)		Chi- test	P- value
	n	%	n	%	n	%		
Jaundice	13	43.3	7	30.4	5	71.4	3.8	0.15
Accidentally discovered HSM	10	33.3	4	17.4	1	14.3	2.3	0.33
Abdominal distension	6	20	6	26.1	1	14.3	0.54	0.76
Hematemesis and melena	1	3.3	2	8.7	0	0	1.2	0.55
Accidentally discovered increased liver enzymes	0	0	4	17.4	0	0	6.9	*0.03

* Significant

Jaundice was a symptom in 15 patients (50%) in group (I), in 11 patients (47.8%) in group (II) and in 4 patients (57.1%) in group (III) This difference was not statistically significant ($p > 0.05$).

Hematemesis was reported in nearly half of the patients in group (III) 57.1%, while in group (I) and (II) it was 16.6% and 21.7% respectively. This difference was statistically nearly significant ($p = 0.07$).

similarly, melena was present in 57.1% of patients in group (III) versus 13.3% and 17.4% in groups (I) and (II). This difference was statistically significant ($p < 0.05$).

Bleeding from other sites in the form of bleeding gums and epistaxis was a symptom in 10 cases in group (I) (33.3%), in 8 cases in group (II) (34.8%) versus 2 cases in group (III) (28.6%). This difference was not statistically significant ($p > 0.05$).

Abdominal distension was noted by the parents in 13 cases in group (I) (43.3%), in 13 cases in group (II) (56.5%) and in 4 cases (57.1%) in group (III). This difference was not statistically significant ($p > 0.05$).

Abdominal pain was a symptom in 7 cases in group (I) 23.3%, in 3 cases in group (II) (13%) versus none in group (III). This difference did not reach statistically significant difference.

Diarrhea was observed only in three patients in group (I) (10%) and there was no associated parasitic infestation. It was not observed in group (II) nor group (III). However this difference did not reach statistical significance ($p > 0.05$).

Impaired consciousness was a symptom in only 1 patient (4.3%) in group (II), who had chronic hepatitis B,

Pruritis was observed in 2 cases in group (III) (28.6%), in 4 cases in group (I) (13.3%), as compared to none in group (II). This difference was not statistically significant ($p > 0.05$).

Arthralgia was not reported in any patients in the three groups of patients (Table 6).

Table (6) : Comparison of symptoms between different patient groups.

	Group (I) (n=30)		Group (II) (n=23)		Group (III) (n=7)		Chi- test	P- value
	n	%	n	%	n	%		
Jaundice	15	50	11	47.8	4	57.1	0.19	0.91
Hematemesis	5	16.7	5	21.7	4	57.1	5.3	0.07
melena	4	13.3	4	17.4	4	57.1	7	0.03*
Other bleeding	10	33.3	8	34.8	2	28.6	0.93	0.95
Abdominal distension	13	43.3	13	56.5	4	57.1	1.07	0.59
Abdominal pain	7	23.3	3	13	0	0	2.6	0.28
Diarrhea	3	10	0	0	0	0	4.7	0.32
Impaired consciousness	0	0	1	4.3	0	0	1.6	0.44
Pruritis	4	13.3	0	0	2	28.6	7	0.13
Arthralgia	0	0	0	0	0	0	-	-

* significant

Possible risk factors for viral hepatitis were searched for such as:-

- Bilharziasis diagnosed by stool analysis, urine analysis and or rectal snip, was observed in 9 cases 30% in group (I) ,6 cases 26.1% in group (II) and in one case 14.3% in group (III). However, there was no evidence of schistosomal granuloma in liver biopsies of these patients. This difference was not statistically significant ($p > 0.05$).

- History of treatment by injections was present in 7 cases (30.4%) in group (II), as compared to only 2 cases (6.7%) in group (I) and none in group (III). This difference was statistically significant ($p < 0.05$).

-18 patients (78.3%) in group (II) had received blood transfusion (6 patients were thalassemic and one had pure red cell aplasia, while the others were pale), as compared to 11 patients (36.7%) in group (I) and 3 patients(42.9%) in group (III). This difference was statistically highly significant ($p < 0.01$).

- There was no history of exchange transfusion in the neonatal period in the three groups of patients.

- History of operations (splenectomy, nephrectomy , tonsillectomy, and orthopedic operations) was present in 5 cases (21.7%) in group (II), in 3 cases (10%) in group (I) and in none of patients in group (III). This difference was not statistically significant ($p > 0.05$).

- History of visiting a dentist was present in 3 patients (13%) in group (II), but in none of patients in groups (I) and (III). This difference was statistically nearly significant ($p = 0.08$).

History of hepatitis was present in 20 patients (66.7%) in group (I), in 14 patients (60.9%) in group (II) and in 6 cases (85.7%) in group (III), with no statistically significant difference between the groups ($p > 0.05$).

Hepatitis B vaccine was given to 1 patient in group (II) 4.3%, in 6 patients 20% in group (I) and 2 patients in group (III) with no statistically significant difference between the groups ($p > 0.05$) (Table 7).

Table (7): Comparison of risk factors between different patient groups.

	Group (I) (n=30)		Group (II) (n=23)		Group (III) (n=7)		Chi- test	P- value
	n	%	n	%	n	%		
Bilharziasis	9	30	6	26.1	1	14.3	0.72	0.7
Operation	3	10	5	21.7	0	0	2.8	0.25
Injections	2	6.7	7	30.4	0	0	7.2	0.03*
Blood transfusion	11	36.7	18	78.3	3	42.9	9.4	0.009**
Exchange transfusion	0	0	0	0	0	0	-	-
Visiting a dentist	0	0	3	13	0	0	5	0.08
Hepatitis	20	10	14	60.9	6	85.7	1.5	0.48
Hepatitis B vaccine	6	20	1	4.3	2	28.9	3.6	0.16

* significant

** Highly significant

Nineteen patients (63.3%) in group (I), 15 patients (65.2%) in group (II) and 6 patients (85.7%) in group (III) were born to consanguineous parents with no statistically significant difference ($p > 0.05$).

History of similar condition in the family was present in 6 patients (20%) in group (I), in 5 patients (21.7%) in group (II) and in 3 patients (42.9%) in group (III) with no statistically significant difference ($p > 0.05$). (Table 8)

Table (8): Comparison of the family history between different patient groups.

	Group (I) (n=30)		Group (II) (n=23)		Group (III) (n=7)		Chi- test	P- value
	n	%	n	%	n	%		
Consanguinity	19	63.3	15	65.2	6	85.7	1.3	5.2
Similar condition	6	20	5	21.7	3	42.9	1.7	0.43

Growth was assessed by measuring weight and height and plotting them on the standard growth curves (The National Center For Health Statistics, 1996).

In group (II) more than half of the patients 56.5% of patients weighed below or equal to the 5th percentile for age, as compared to (34.5%) in group (I) and (14.3%) in group (III). ($p > 0.05$) (Table 9).

Table (9): Comparison of weight percentiles between different patient groups.

	Group (I) (n=29)		Group (II) (n=23)		Group (III) (n=7)	
	n	%	n	%	n	%
5th	10	34.5	13	56.5	1	14.3
10 th	4	13.8	2	8.7	3	42.9
25th	7	24.1	2	8.7	1	14.3
50th	3	10.3	3	13	1	14.3
>75	5	17.2	3	13	1	14.3
Chi-test	9.2					
P-value	0.33					

Regarding the height percentiles, 78.3% of patients in group (II) were plotted below or equal to the 5th percentile versus 53.6% of patients in group (I) and 57.1% in group (III). ($p > 0.05$) (Table 10).

Table (10): Comparison of height percentiles between different patient groups.

	Group (I) (n=28)		Group (II) (n=23)		Group (III) (n=7)	
	n	%	n	%	n	%
5th	15	53.6	18	78.5	4	57.1
10 th	1	3.6	2	8.7	1	14.3
25th	8	28.6	0	0	1	14.3
50th	1	3.6	1	4.3	1	14.3
>75	3	10.7	2	8.7	0	0
Chi-test	11					
P-value	0.2					

By general examination, only one patient, 4.3% in group (II) had impaired consciousness versus none in the other two groups ($p > 0.05$).

pallor was observed in 14 patients (60.9%) in group (II) versus 36.7% in group (I) and 28.6% in group (III). This difference was not statistically significant.

jaundiced was observed in 50% in group (I), 47.8% group (II) and 57.1% in group (III) were ($p > 0.05$).

Scratch marks were noticed in 2 patients in both groups (I) (6.7%) and (III) (28.6%). The difference was statistically significant. ($p < 0.05$).

Lower limb oedma was present in 3 patients in group (I), in 1 patient in group (II) and none of patients in group (III) with no statistically significant difference between the groups ($p > 0.05$).

Cyanosis, clubbing, purpura, palmar erythema, spider naevi and foetor hepaticus were not observed in any patient in the three groups (Table 11).

Table (11): Comparison of the physical findings between different patient groups.

	Group (I) (n=30)		Group(II) (n=23)		Group (III) (n=7)		Chi- test	P- value
	n	%	n	%	n	%		
Impaired consciousness	0	0	1	4.3	0	0	1.6	0.4
Pallor	11	36.7	14	60.9	2	28.6	3.9	0.13
Jaundice	15	50	11	47.8	4	57.1	0.19	0.91
Scratch marks	2	6.7	0	0	2	28.6	7	0.03*
Lower limb oedma	3	10	1	4.3	0	0	1.2	0.54
palmer erythema	0	0	0	0	0	0	—	—
spider naevi	0	0	0	0	0	0	—	—
foetor hepaticus	0	0	0	0	0	0	—	—
Cyanosis	0		0	0	0	0	—	—
clubbing	0	0	0	0	0	0	—	—
purpura	0	0	0	0	0	0	—	—

* significant

Regarding chest and heart examination, only one patient in group (I), had congenital heart disease and one patient in group (III) had recurrent chest infection. This difference was not statistically significant.

Abdominal examination showed visible anterior abdominal wall veins in 7 cases (23.3%) in group (I), 8 cases (34.8%) in group (II) and 2 cases (28.6%) in group (III) with no statistically significant difference between the groups ($p > 0.05$).

Hepatomegaly was present in 66.7%, 65.2% and 71.4% in groups (I), (II) and (III) respectively with no statistically significant difference between the groups ($p > 0.05$).

Splenomegaly was present in 85.7% of patients in group (III), versus 56.7% in group (I) and 56.5% in group (II) ($p > 0.05$). Two cases (6.7) in group (I) and three cases (13%) in group (II) underwent splenectomy.

Ascites was detected in 1 patient in group (I) and in 4 patients in group (II) with no statistically significant difference between the groups ($p > 0.05$) (Table 12).

Table (12): Comparison of abdominal physical findings between different patient groups.

	Group (I) (n=30)		Group (II) (n=23)		Group (III) (n=7)		Chi-test	P-value
	n	%	n	%	n	%		
Abdominal wall veins	7	23.3	8	34.8	2	28.6	0.84	0.66
Hepatomegaly	20	66.7	15	65.2	5	71.4	0.93	0.95
Splenomegaly	17	56.7	13	56.2	6	85.7	2.18	0.34
Splenectomy	2	6.7	3	13	0	0	1.5	0.47
Ascites	1	3.3	4	17.4	0	0	4	0.13

Mean blood count values are shown in table (13). No statistically significant difference was detected between the groups. ($p > 0.05$).

Table (13) : Comparison of complete blood count between different patient groups.

	Group (I) (n=30)	Group (II) (n=23)	Group (III) (n= 7)	F-test	P-value
Haemoglobin (gm/dl)	9.2 \pm 2	8.5 \pm 2.1	9.6 \pm 1.8	1.18	0.32
Total leucocytic count (thousands/m)	6.8 \pm 4.7	8.1 \pm 5	7.6 \pm 5.1	0.5	0.61
Platelets (thousands/m)	165 \pm 115	188 \pm 100	255 \pm 142	1.83	0.17

According to Dacie and Lewis (1995), anemia (HB<11 gm/dl) was present in 82.6% of patients in group (II), 71.4% in group (III) and in 70% of patients in group (I) with no statistically significant difference ($p > 0.05$). Leucopenia (TLC< 5,000Lmm) was present in 53.3% of patients in group (I), 21.7% in group (II) and 42.9% of patients in group (II) with no statistically significant difference. Thrombocytopenia (platelets<150.0000) was present in 50% of patients in group (I), 47.8% in group (II) and in (14.3%) in group (III) with no statistically significant difference (Table 14).

Table (14): Comparison of anemia, leucopenia and thrombocytopenia between different patient groups.

	Group (I) (n=30)		Group (II) (n=23)		Group (III) (n=7)		Chi-test	P-value
	n	%	n	%	n	%		
Anemia	21	70	19	82.6	5	71.4	1.16	0.56
Leucopenia	16	53.3	5	21.7	3	42.9	5.4	0.07
Thrombocytopenia	15	50	11	47.8	1	14.3	3	0.22
Pancytopenia	7	23.3	3	13	0	0	2.6	0.28

Concerning the liver functions, the mean of total and direct serum bilirubin were comparable in all groups.

Mean value of aspartate transaminase (AST) and alanine transaminase (ALT) were highest in group (II).

The mean value of serum alkaline phosphatase was highest in group (III) the differences were not statistically significant.

Plasma proteins were lowest in group (III) the difference with nearly statistically significant (P=0.06). While mean serum albumin and prothrombin time levels were comparable in the three groups (Table 15).

Table (15): Comparison of the liver function tests between different patient groups.

	Group (I) (n=30)	Group (II) (n=23)	Group(III) (n=7)	F-test	P -value
Total bilirubin (mg/dl)	4 ± 6.5	3.4 ± 5.4	3.6 ± 3.2	0.07	0.94
Direct bilirubin (mg/dl)	1.9 ± 3.6	1.4 ± 2.7	1.8 ± 1.9	0.17	0.84
AST (IU/L)	173 ± 184	208 ± 266	97 ± 69	0.75	0.48
ALT (IU/L)	109 ± 107	139 ± 196	68 ± 46	0.72	0.49
Alkaline phosphatase (U/L)	558 ± 493	406 ± 244	715 ± 706	1.5	0.23
Plasma proteins (gm/dl)	7 ± 0.9	7.3 ± 1	6.3 ± 1	2.9	0.06
Albumin (gm/dl)	3.5 ± 0.8	3.6 ± 0.8	3.1 ± 0.6	0.9	0.41
Prothrombin time(seconds more than control)	3.7 ± 3.6	3.8 ± 3.4	3.7 ± 4	0.05	0.99

In group (II), 10 patients (43.5%) had hepatitis B, 7 patients (30.4%) had hepatitis C and 6 patients (26.1%) had evidence of both B & C (Table 17).

Table (16): Incidence of HBV & HCV in group (II).

	Group(II) (n=23)	
	n	%
HBV	10	43.5
HCV	7	30.4
HBV&HCV	6	26.1
Total	23	100

Hepatitis B virus infection was diagnosed by presence of HBsAg and/ or HBcAb, while HCV virus infection was diagnosed by presence of HCV Ab by ELISA 3rd generation (Table 17 & 18).

Table (17): Incidence of serological markers of viral hepatitis in group (II).

	Group(II) (n=23)	
	n	%
HBsAg	10	43.5
HBcAb	12	52.3
HCV Ab	13	56.5

Table (18): Patterns of serological markers of viral hepatitis in group (II).

	Group(II) (n=23)	
	n	%
HBsAg	2	8.7
HBcAb	5	21.7
HBsAg + HBcA	3	13
HCV Ab	7	30.4
HBsAg +HCV Ab	2	8.7
HBcAb + HCV Ab	1	4.3
HBsAg + HBcAb + HCV Ab	3	13

Immunoglobulin of IgG type was elevated in most of the cases in the different patient groups: 87%, 85.7% and 76.7% in groups (II), (III) and (I) respectively. Immunoglobulin of IgM type was elevated in 29 (96.7%), 22 (95.7%) and, 7 (100%) of groups (I), (II) and (III) respectively. IgA was elevated in 53.3%, 65.2% and 42.9% in groups (I), (II) and (III) respectively. all three Immunoglobulins Ig G, M and A were elevated in 40%, 61% and 43% in groups (I), (II) and (III), respectively. The differences were not statistically significant (Table 19).

Table (19): Comparison of Immunoglobulins between different patient groups.

	Group (I) (n=30)		Group (II) (n=23)		Group(III) (n=7)		Chi-test	P -value
	n	%	n	%	n	%		
Immunoglobulins G	23	76.7	20	87	23	85.7	1	0.6
Immunoglobulins M	29	96.7	22	95.7	7	100	0.32	0.85
Immunoglobulins A	16	53.3	15	65.2	3	42.9	1.4	0.5
All immunoglobulins	12	40	14	61	3	43	2.4	0.3

All patients and controls were tested for the following autoantibodies : ANA, SMA, AMA, LKM and ANCA. A titter of 1/20 of SMA was considered negative. The prevalence of autoantibodies was comparable in both groups (I) and (II). A statistically significant difference was observed between groups (I) and (II) versus group (III) and control as regards ANA, SMA, LKM and ANCA (Table 20).

Table (20): Comparison of autoantibodies between patient groups and controls.

	Group (I) (n=30)		Group (II) (n=23)		Group(III) (n=7)		Group(IV) (n=24)		Chi- test	P -value
	n	%	n	%	n	%	n	%		
ANA	9	30	6	26.1	0	0	0	0	10.8	0.01*
SMA>1/20	22	73.3	18	78.3	1	14	0	0	41.4	0.00**
AMA	1	3.3	1	4.3	0	0	0	0	1.3	0.74
LKM	16	53.3	13	56.5	0	0	0	0	25.9	0.00**
ANCA	8	26.7	7	30.4	0	0	0	0	10.8	0.01*

* Significant

** Highly significant

Similarly, the same observation was noted when groups (I) & (II) were compared to controls (Table 21).

Table (21): Comparison of autoantibodies between patient groups (I), (II) and controls.

	Group (I) (n=30)		Group (II) (n=23)		Group(IV) (n=24)		Chi- test	P -value
	n	%	n	%	n	%		
ANA	9	30	6	26.1	0	0	10.8	0.14*
SMA>1/20	22	73.3	18	78.3	0	0	37.8	0.00**
AMA	1	3.3	1	4.3	0	0	0.98	0.61
LKM	16	53.3	13	56.5	0	0	21.1	0.00**
ANCA	8	26.7	7	30.4	0	0	8.55	0.14*

Comparing of prevalence of autoantibodies between groups (I) and (II) revealed no statistically significant difference (Table 22).

Table (22): Comparison of autoantibodies between groups (I) and (II).

	Group (I) (n=30)		Group (II) (n=23)		Chi- test	P value
	n	%	n	%		
ANA	9	30	6	26.1	0.09	0.76
SMA>1/20	22	73.3	18	78.3	0.17	0.47
AMA	1	3.3	1	4.3	0.37	0.85
LKM	16	53.3	13	56.5	0.53	0.82
ANCA	8	26.7	7	30.4	0.91	0.76

Table (23) shows the patterns of autoantibodies in groups (I) and (II)

Table (23) The patterns of autoantibodies in groups (I) and (II).

	Group (I) (n=30)		Group (II) (n=20)	
	n	%	n	%
SMA	6	20	1	4.3
ANA+SMA	4	13.3	4	17.4
ANA+ SMA +LKM	3	10	2	8.7
ANA+SMA+LKM+ANCA	2	6.7	0	0
SMA+ LKM	8	28.6	6	26.1
SMA+AMA+LKM	1	3.3	0	0
SMA+ANCA	4	13.3	2	8.7
SMA+AMA	0	0	1	4.3
SMA+LKM+ANCA	2	6.7	5	21.7

ANA were estimated in a titer of 1/20 in 16.7% & 21.7% of groups (I) & (II) respectively, while a titer 1/40 was found in 13.3% of group (I) as compared to 4.3% of group (II) ($p > 0.05$).

SMA were detected in a titer of 1/40 in 50%, 56.55 and 14.3% of groups (I), (II) and (III) respectively. A titer of 1/80 was present in 10%, and 17.4% of groups (I) and (II) respectively. A titer of $>1/80$ was present in 4 cases in group (I) compared to only one case in group (II) ($p < 0.05$).

AMA were encountered in 2 patients only, one in group (I) & another in group (II) in a titer of 1/40 for both ($p > 0.05$).

LKM were found in a comparable percentage of groups (I) and (II) in titer 1/20 (46.7% versus 34.8%), while a titer 1/40 was found in 21.7% of group (II) as compared to only 3.3% of group (I). Titer of 1/80 was found in only one patient in group (I) ($p < 0.05$).

ANCA were found in a titer of 1/20 in 13.3% of group (I) as compared to 30.4% of group (II). Titers of 1/40 & 1/80 were found in group (I) only in 10% & 13.3% of patients respectively ($p > 0.05$) (Table 24).

Table (24): Comparison of autoantibodies titer between different patient groups.

	Group (I) (n=30)		Group (II) (n=23)		Group(IV) (n=24)		Chi- test	P -value
	n	%	n	%	n	%		
ANA								
-ve	21	70	17	73.9	7	100	12	0.28
1/20	5	16.7	5	21.7	0	0		
1/40	4	13.3	1	4.3	0	0		
SMA								
-ve (1/20)	8	26.7	5	21.7	7	100	12.9	0.05*
1/40	15	50	13	56.6	0	0		
1/80	3	10	4	17.4	0	0		
>1/80	4	13.3	1	4.3	0	0		
AMA								
-ve	29	96.7	22	95.7	7	100	0.32	0.85
1/40	1	3.3	1	4.3	0	0		
LKM								
-ve	14	46.7	10	43.5	7	100	13.2	0.04*
1/20	14	46.7	8	34.8	0	0		
1/40	1	3.3	5	21.7	0	0		
1/80	1	3.3	0	0	0	0		
ANCA								
-ve	22	73.3	16	69.6	7	100	13	0.37
1/20	4	13.3	7	30.4	0	0		
1/40	3	10	0	0	0	0		
1/80	1	3.3	0	0	0	0		

* Significant

Tables (25) & (26) show the prevalence of different patterns of ANA & ANCA encountered in groups (I) & (II).

Table (25):Types of ANA patterns in groups (I) & (II).

	Group(I) (n=9)		Group(II) (n=6)	
	n	%	n	%
Homogenous	3	33.3	0	0
Speckeled	6	66.7	6	100

Table (26) :Types of ANCA patterns in groups (I) & (II).

	Group(I) (n=8)		Group(II) (n=7)	
	n	%	n	%
c-ANCA	3	37.5	6	85.7
p-ANCA	5	62.5	0	0
c&p-ANCA	0	0	1	14.3

Table (27):ANCA association with other autoantibodies in groups (I) & (II).

	Group(I) (n=8)		Group(II) (n=7)	
	n	%	n	%
c-ANCA				
&S MA	2	25	2	28.6
& SMA & LKM	1	12.5	4	71.4
p-ANCA				
&SMA	2	25	0	0
&SMA &LKM	1	12.5	0	0
&SMA &LKM &ANA	2	25	0	0
c & p-ANCA				
& SMA& LKM	0	0	1	14.3

Table (28): Comparison of autoantibodies in subtypes of group (II).

	HBV (n=10)		HCV (n=7)		HBV & HCV (n=6)	
	n	%	n	%	n	%
ANA	1	10	3	42.9	2	33.3
MA>1/20	8	80	5	71.4	5	83.3
AMA	0	0	1	14.3	0	0
LKM	4	40	4	57.1	5	83.3
ANCA	3	30	0	0	4	66.6

Abdominal ultrasonography was done , and revealed hepatomegaly in 50% in group (I), 60.9% in group (II) and 71.4% in group (III), while shrunken liver was present in 30%, 26.1% and 14.3% in groups (I), (II) and (III) respectively ($p>0.05$).

Increased liver echogenicity was present in 73.3% in group (I), 78.3% in group (II) and 85.7% in group (III) ($p>0.05$).

The portal vein was dilated in 10%, 17.4% and 14.3% in groups (I), (II) and (III) respectively.

The hepatic veins were attenuated in 2 patients in group (I), 3 patients in group (II) and in 1 patient in group (III) who proved to be venoocclusive disease by liver biopsy.

Gall bladder abnormalities were present in 3 patients in group (II). 2 patients had excessive fibrosis around the gall bladder and the third distended gall bladder with thick wall.

Splenomegaly (Increase in splenic span) was detected in 80% in group (I), 85.7% in group (III) and in 60.9% in group (II) ($p>0.05$).

Ascites was detected in 13.3% and 17.4% in groups (I) and (II) respectively. None of the patients in group (III) had ascites ($p>0.05$).

Kidneys were abnormal in 1 patient (3.3%) in group (I) and 2 patients (8.7%) in group (II). The patient in group (I) had enlarged kidneys with increased echogenicity (grade III) & prominent renal pyramids. The two patients in group (II), one had right nephrectomy (Wilm's tumour) and compensatory hypertrophy of right kidney & the other had increased size & echogenicity (grade II) (Table 29).

Table (29): Comparison of abdominal ultrasonography findings between different patient groups.

	Group (I) (n=30)		Group (II) (n=23)		Group (III) (n=7)		Chi- test	P value
	n	%	n	%	n	%		
<u>Liver size</u>								
Normal	6	20	3	13	1	14.3	1.5	0.83
Increased	15	50	14	60.9	5	71.4		
Decreased	9	30	6	26.1	1	14.3		
<u>Liver echogenicity</u>								
Normal	8	26.7	5	21.7	1	14.3	0.54	0.76
Increased	22	73.3	18	78.3	6	85.7		
<u>Portal vein</u>								
Normal	27	90	19	82.6	6	85.7	0.62	0.73
Dilated	3	10	4	17.4	1	14.3		
<u>Hepatic veins</u>								
Normal	28	93.3	20	87	6	85.7	8.9	0.06
Attenuated	2	6.7	3	13	1	14.3		
<u>Gall bladder</u>								
Normal	30	100	20	87	7	100	5.08	0.09
Pathological	0	0	3	13	0	0		
<u>Splenic size</u>								
Normal	4	13.3	6	26.1	1	14.3	3.3	0.5
Increased	24	80	14	60.9	6	85.7		
Splenectomy	2	6.7	3	13	0	0		
<u>Ascites</u>								
	4	13.3	4	17.4	0	0	1.4	0.5
<u>Kidneys</u>								
Normal	29	96.7	21	91.3	7	100	4.3	0.37
Abnormal	1	3.3	2	8.7	0	0		

Upper endoscopy was done in 17 patients in group (I), 12 patients in group (II) and 6 patients in group (III). Esophageal varices were detected in 11 patients (64.7%), 6 patients 50% and 1 (16.7%) in groups (I), (II) and (III) respectively ($p>0.05$).

As regard their grading, 5 patients in group (I) and 1 patient in group (II) had grade 1 esophageal varices. One patient in both groups (I) and (II) had grade 2 esophageal varices. While only one patient in group (II) had grade 4 esophageal varices. 5 patients in group (I) and 2 patient in group (II) and 1 patient in group (III) had eradicated esophageal varices by injection sclerotherapy and band ligation ($p>0.05$).

Gastric varices were detected in only one patient in both groups (I) & (II) ($p>0.05$). Congestive gastropathy was detected in 41.2%,41.7% and 33.3% in groups (I), (II) and (III) respectively ($p>0.05$) (Tables 30 & 31).

Table (30): Comparison of upper gastrointestinal endoscopy findings between different patient groups.

	Group (I) (n=17)		Group (II) (n=12)		Group(III) (n=6)		Chi- test	P value
	n	%	n	%	n	%		
Esophageal varices	11	64.7	6	50	1	16.7	4.1	0.13
Gastric varices	1	5.9	1	8.3	0	0	0.5	0.77
Congestive gastropathy	7	41.2	5	41.7	2	33.3	0.5	0.77

Table(31): Comparison of grading of esophageal varices between different patient groups.

	Group (I) (n=11)		Group (II) (n=6)		Group(III) (n=1)		Chi- test	P value
	n	%	n	%	n	%		
Grade 1	5	45.5	1	16.7	0	0	1.96	0.38
Grade 2	1	9	1	16.7	0	0		
Grade 3	0	0	1	16.7	0	0		
Grade 4	0	0	1	16.7	0	0		
Eradicated	5	45.5	2	33.3	1	100		

Lower endoscopy was done in 14 patients in group (I), 7 patients in group (II) and 4 patients in group (III).

Mucosal congestion was detected in 100% in group (III) as compared to 64.3% in group (I) and 57.1% in groups (II) ($p>0.05$).

Rectal polyps were detected in 21.4%, 14.3% in groups (I) and (II) respectively ($p>0.05$).

Rectal ulcers were detected in only one patient in both groups (I) and (III).

Bilharzial ova was detected in only one patient in group (I). (Table 32).

Table (32): Comparison of Lower gastrointestinal endoscopy findings between different patient groups.

	Group (I) (n=14)		Group (II) (n=7)		Group(III) (n=4)		Chi- test	P value
	n	%	n	%	n	%		
Mucosal congestion	9	64.3	4	57.1	4	100	2.35	0.31
Rectal polyps	3	21.4	1	14.3	0	0	1.08	0.58
Rectal ulcers	1	7.7	0	0	1	25	2.1	0.35
Bilharzial ova in rectal snip	0	0	1	14.3	0	0	2.68	0.26

Liver biopsy was done in 28 patients in group (I), 20 patients in group (II), and 7 patients in group (III).

Architecture was disturbed in 75% and 71.4% in groups (I) & (III) respectively, but in group (II) it was present in only 40% of patients. This difference is statistically significant ($p < 0.05$)

Portal fibrosis was found in all patients in group (III), in 89.3% , 65% in groups (I) & (II) respectively. This difference is statistically significant ($p < 0.05$)

Portal inflammatory cells were present in 12.6%, 75% and 85.7% in groups (I), (II) & (III) respectively ($p > 0.05$).

Hepatocyte degeneration was present in 70% in group (I), 42.9% in group (II) and 25% in group (III). Fatty changes in hepatocytes was detected in only 2 cases in group (I) and one in group (II). This difference is statistically significant ($p < 0.05$).

Bile canaliculi proliferation was observed in 10.7% and 14.3% in groups (I) & (III) respectively. Cholestasis was observed in 25%, 42.9% in groups (II) & (III) respectively. This difference is statistically significant ($p > 0.05$).

Chronic hepatitis was present in 65% in group (II) and in 34.9% & 28.6% of groups (I) & (III) respectively. Cirrhosis was present in 71.4% & 65.4% in groups (III) & (II), but in group (I) it was present in 35% of patients. One patient in group (I) had subacute hepatic necrosis and another one had sclerosing cholangitis. This difference is nearly statistically significant ($p = 0.07$) (Table 33).

Table (33): Comparison of liver biopsy findings between different patient groups.

	Group (I) (n=28)		Group (II) (n=20)		Group(III) (n=7)		Chi- test	P value
	n	%	n	%	n	%		
<u>Architecture</u>								
Normal	7	25	12	60	2	28.5	6.37	0.04*
Disturbed	21	75	8	40	5	71.4		
<u>Portal</u>								
Fibrosis	25	89.3	13	65	7	100	6.4	0.04*
Inflammatory cells	26	92.9	15	75	6	85.7	2.9	0.22
<u>Hepatocytes</u>								
Normal	19	67.9	5	25	4	57.1	10.2	0.04*
Degenerated	7	25	14	70	3	42.9		
Fatty	2	7.1	1	5	0	0		
<u>Bile canaliculi</u>								
Normal	25	89.3	15	75	3	42.9	13.4	0.009**
Proliferation	3	10.7	0	0	1	14.3		
Cholestasis	0	0	5	25	3	42.9		
<u>Conclusion</u>								
Chronic hepatitis	9	34.9	13	65	2	28.6	5.12	0.07
Cirrhosis	17	65.4	7	35	5	71.4		

* significant

** Highly significant

Cirrhosis was present in 65.4% in group (I) compared to 34.6% in group (II). This difference is statistically significant ($p < 0.05$). (Table 34).

Table (34): Comparison of liver biopsy findings between patient groups(I) & (II)

	Group (I) (n=28)		Group (II) (n=20)		Chi-test	P -value
	n	%	n	%		
<u>Architecture</u>						
Normal	7	25	12	60	5.9	0.02*
Disturbed	21	75	8	40		
<u>Portal</u>						
Fibrosis	25	89.3	13	65	4.2	0.04*
Inflammatory cells	26	92.9	15	75	2.9	0.09
<u>Hepatocytes</u>						
Normal	19	67.9	5	25	9.8	0.008*
Degenerated	7	25	14	70		
Fatty	2	7.1	1	5		
<u>Bile canaliculi</u>						
Normal	25	89.3	15	75	9.4	0.009**
Proliferation	3	10.7	0	0		
Cholestasis	0	0	5	25		
<u>Conclusion</u>						
Chronic hepatitis	9	34.9	13	65	4.2	0.04*
Cirrhosis	17	65.4	7	35		

* significant

** Highly significant

Table (35) : Descriptive data of patients in group (I)

No.	Sex	Age years	Complaint	Du.	Present History							Past History							Family History			General Examination						
					J	AD	AP	D	DC	Hem	M	OB	Pru	Arth	B	O	Inj	BT	ET	VD	Hep	H V	Cons	SC	Wt (Kgs)	Perc	Ht(Cm)	Perc
1	M	16 J.		3Y	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-	-	39	<5th	155	<5th
2	F	13 J.		3Y	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	32	<5th	135	<5th
3	F	9 Ac.SM		3Y	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	30	50th	143	>75th	
4	F	7 J.		2Y	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	20	25th	119	25th	
5	M	2 J.		6M	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10	<5th	80	<5th	
6	M	5 Hem.&M		1Y	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-	16	10th	100	<5th		
7	F	5 Ac.HSM		7M	+	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-	19	>75th	105	25th		
8	F	10 J.		1Y	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	30	25th	137	25th	
9	M	5 J.		2Y	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25	>75th	105	10th	
10	F	16 A.D.		6Y	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-	75	>75th	168	>75th	
11	F	3 Ac.HM		1Y	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12	10th	79	<5th	
12	F	9 J.		6M	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	33	>75th	125	25th	
13	F	6 J.		1Y	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	22	>75th	110	25th	
14	F	5 Ac.HSM		6M	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	16	25th	103	>75	
15	M	10 J.		1Y	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	34	50th	121	<5th	
16	M	10 A.D.		5Y	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25	10th	133	25th	
17	M	11 J.		2Y	+	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	33	25th	133	<5th	
18	F	1 J.		6M	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	#	#	#	#	
19	M	16 A.D.		5Y	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	31	<5th	150	<5th	
20	F	5 A.D.		1Y	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	18	50th	101	<5th	
21	F	12 Ac.HSM		3Y	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25	<5th	121	<5th	
22	F	14 A.D.		4Y	+	+	+	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	34	<5th	143	<5th	
23	F	10 J.		5Y	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	28	25th	136	25th	
24	M	13 Ac.SM.		2Y	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	42	25th	155	50th	
25	M	12 J.		4Y	+	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	34	25th	145	25th	
26	F	14 A.D.		2Y	+	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	35	<5th	119	<5th	
27	M	6 Ac.HSM		2Y	+	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-	17	<5th	99	<5th	
28	M	4 Ac.HM		2Y	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	13	<5th	19	<5th	
29	F	5 Ac.HSM		4Y	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	15	10th	88	<5th	
30	M	5 Ac.HSM		3Y	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	15	<5th	#	#	

Table (36) Descriptive data of patients in group (I) "Continued".

NO.	General Examination											Chest &					Abdominal Examination										C.B.C				
	Con.	P	J	Cy	Cl	Pur	Scr.	M	P.E	S.N	F.H	L.L.O	Heart Ex.	AV	HM	Lc	Lm	Le	Lc	SM	SY	SP	Se	Sc	As	HB	Plat	WBCs	A	T	L
1	N	+	-	-	-	-	-	-	-	-	-	-	Free	-	-	-	-	-	-	-	-	-	-	-	-	8	155	4.9	+	-	-
2	N	-	-	-	-	-	-	-	-	-	-	-	Free	-	-	-	-	-	-	-	-	-	-	-	-	13	93	3.8	-	+	+
3	N	-	-	-	-	-	-	-	-	-	-	-	Free	-	-	-	-	-	-	-	-	-	-	-	-	11	160	4.7	-	-	+
4	N	-	-	-	-	-	-	-	-	-	-	-	Free	-	-	-	-	-	-	-	-	-	-	-	-	10	221	5.2	+	-	-
5	N	-	-	-	-	-	-	-	-	-	-	-	Free	-	4	-	R	S	-	-	-	-	-	-	-	11	229	24	-	-	-
6	N	+	-	-	-	-	-	-	-	-	-	-	Free	-	-	2	Sh	F	+	-	-	-	-	-	-	5	160	5	+	-	+
7	N	+	+	-	-	-	-	-	-	-	-	-	Free	+	4	4	Sh	F	+	-	-	-	-	-	-	9	66	4	+	+	+
8	N	-	-	-	-	-	-	-	-	-	-	-	Free	-	6	6	Sh	F	+	-	-	-	-	-	-	10	163	4	+	-	+
9	N	-	-	-	-	-	-	-	-	-	-	-	Free	-	-	-	-	-	-	-	-	-	-	-	-	11	329	10.7	-	-	-
10	N	-	-	-	-	-	-	-	-	-	-	-	Free	-	-	-	-	-	-	-	+	-	-	-	-	11	322	11	-	-	-
11	N	-	+	-	-	-	-	-	-	-	-	-	Cong.H.D.	-	10	10	Sh	F	-	-	-	-	-	-	-	9	462	15	+	-	-
12	N	+	+	-	-	-	-	-	-	-	-	-	Free	-	-	4	Sh	F	+	-	-	-	-	-	-	8	84	6.8	+	-	-
13	N	+	+	-	-	-	-	-	-	-	-	-	Free	-	-	-	-	-	-	-	-	-	-	-	-	6	151	4.4	+	-	+
14	N	-	-	-	-	-	-	-	-	-	-	-	Free	-	6	8	Sh	F	+	-	-	-	-	-	-	10	84	6.4	+	+	-
15	N	-	+	-	-	-	-	-	-	-	+	-	Free	-	-	-	-	-	-	-	-	-	-	-	-	12	62	4.6	-	+	+
16	N	+	-	-	-	-	-	-	-	-	-	-	Free	-	6	6	Sh	F	-	-	-	-	-	-	-	7	336	5.4	+	-	-
17	N	+	+	-	-	-	-	-	-	-	+	-	Free	-	6	6	Sh	F	+	-	-	-	-	-	-	9	68	6.6	+	-	-
18	N	+	+	-	-	-	-	-	-	-	-	-	Free	+	4	4	Sh	F	+	-	-	-	-	-	-	5	102	8.9	+	-	-
19	N	-	-	-	-	-	-	-	-	-	-	-	Free	+	-	6	Sh	F	+	-	-	-	-	-	-	9	190	2.9	+	-	+
20	N	-	-	-	-	-	-	-	-	-	-	-	Free	+	10	6	Sh	F	+	-	-	-	-	-	+	9	232	11	+	-	-
21	N	+	-	-	-	-	-	-	-	-	-	-	Free	+	2	6	Sh	F	+	-	-	-	-	-	-	8	101	3	+	+	+
22	N	+	+	-	-	-	-	-	-	-	+	-	Free	+	2	6	Sh	F	+	-	-	-	-	-	-	7	31	2.1	+	+	+
23	N	-	+	-	-	-	-	-	-	-	-	-	Free	-	-	4	Sh	F	+	-	-	-	-	-	-	10	59	3.6	+	+	+
24	N	-	+	-	-	-	-	-	-	-	-	-	Free	+	-	-	-	-	-	-	-	-	-	-	-	7	70	3.7	+	+	+
25	N	-	+	-	-	-	-	-	-	-	-	-	Free	-	6	6	Sh	F	-	-	-	-	-	-	-	12	415	13.8	-	-	-
26	N	-	+	-	-	-	-	-	-	-	-	-	Free	-	-	-	-	-	-	-	-	-	-	-	-	10	85	4.2	+	+	+
27	N	-	+	-	-	-	-	-	-	-	-	-	Free	-	6	6	Sh	F	+	-	-	-	-	-	-	11	43	4.8	-	+	+
28	N	-	-	-	-	-	-	-	-	-	-	-	Free	-	4	-	Sh	F	-	-	-	-	-	-	-	10	278	10.2	+	-	-
29	N	+	+	-	-	-	-	-	-	-	-	-	Free	-	10	8	Sh	F	+	-	-	-	-	-	-	8	72	3	+	+	+
30	N	-	+	-	-	-	-	-	-	-	-	-	Free	-	6	8	Sh	F	+	-	-	-	-	-	-	11	118	5.8	-	+	-

Table (37) Descriptive data of patients in group (I) "Continued "

No.	Liver Function Tests						PT	Hep. Markers			Igs.		AUTOANTIBODIES					
	TB	DB	AIK	AST	ALT	P.P		Alb	HBsAg	HBcAb	HCV	G	M	A	ANA	SMA	AMA	LKM
1	1.4	0.5	961	182	113	7.8	3	4				I	I	N		1/40		1/20 P.1/80
2	1.1	0.2	320	49	16	7.2	3.7	1.5				I	I	I	1/40 Sp	1/20		
3	0.3	0.1	276	115	116	8.2	4.5	1.5				I	I	I	1/20 H	1/20	1/20	
4	0.5	0.1	213	69	82	7.1	4.2	5				I	I	N		1/20	1/20	
5	1.1	0.4	290	200	79	6.8	4.2	4.5				I	I	I		1/40	1/40	1/80
6	0.5	0.2	276	112	500	8.4	4.6	6				I	N	I		1/40		
7	3.1	1.9	349	736	339	6	2.6	4.5				I	I	N	1/20 Sp	>1/80	1/20 P.1/40	
8	0.4	0.1	327	49	36	8.1	4	18				I	I	N	1/40 H	>1/80		
9	0.3	0.1	257	30	15	6.7	4	5.5				N	I	I		1/40		
10	0.6	0.2	385	139	114	6.4	3.5	2.5				I	I	I		1/80		P.1/20
11	4	2.5	2204	71	81	6.2	3	3				I	I	I		>1/80		
12	3.4	1.6	1003	426	211	7.3	2	>1M				I	I	N		>1/80	1/20 C.1/40	
13	25.4	11.8	145	713	218	7.5	2.4	2.5				I	I	N	1/40 Sp	1/40	1/20 P.1/40	
14	0.9	0.2	405	177	248	8.1	4.3	0.6				N	I	N		1/40	1/20	
15	1.5	0.5	231	79	129	6.4	2.4	11				I	I	I	1/20 Sp	1/40	1/20	
16	0.4	0.1	149	33	27	7.1	4.2	0.5				I	I	N		1/80		P.1/20
17	21.7	11.8	353	291	150	6.4	2.5	5				I	I	I	1/40 Sp	1/40	1/40	
18	2.1	0.6	656	47	53			3				I	I	N	1/20 Sp	1/40		
19	1.5	0.2	655	30	18	6.8	3.7	6				I	I	I		1/80		C.1/20
20	0.5	0.1	201	25	21	7.9	4.4	2				N	I	N		1/40	1/20	
21	1.1	0.2	609	105	54	8.1	3.8	1				I	I	I		1/40	1/20	
22	19.3	12.8	573	453	80	6.2	3.2	2.5				I	I	N		1/20		C.1/20
23	4.5	1.9	455	230	124	6.8	2.8	1				I	I	I		1/20	1/20	
24	1.1	0.3	289	79	36	7.5	2.9	2.5				I	I	I		1/40		
25	1.9	0.9	1720	174	100	7.6	4	1.5				I	I	I	1/20 H	1/40		
26	4.7	3.1	771	137	52	4.6	2.8	5				I	I	N		1/20	1/20	
27	2.7	0.8	433	163	144	6.8	4	3				N	I	N		1/40		
28	0.6	0.1	287	50	27	7.2	4.5	1				N	I	N		1/40		
29	3.8	2.1	1592	65	34	5.4	3.1	6.5				N	I	I		1/20	1/20	
30	2.7	1.5	340	147	46	7.1	3.9	1				N	I	I		1/20	1/20	

Table (38) Descriptive data of patients in group (I) "Continued "

No	Abdominal Sonar										Upper Endoscopy			Lower Endoscopy			Liver Biopsy				Conclusion	
	L.S.	I.ec.	P.V.	H.V.	G.B.	I.S.S.	As	Kid.	E.V.	G	G.V	G.C.	M.C	R.P.	R.U.	R.S	Arch.	P.F.	P.Inf.C	Hep.		Bile C.
1	N	I	N	N	N	I	I	N	+	1			+				N	+		N		
2	De.	I	N	N	N	I	I	N	+	Erd.							Di	+		N		
3	N	N	N	N	N	N	I	N		Not done							N		+	Fatty	N	
4	I	N	N	N	N	N	N	N		Not done							N	+	+	N	N	
5	I	N	N	N	N	N	N	N	+	Not done							Di	+	+	N	N	
6	N	N	N	N	N	N	N	N		Erd.		+					Di	+	+	N	N	
7	I	I	N	N	N	I	I	N		Not done							Di	+	+	Deg.	N	
8	I	I	N	N	N	I	I	N		Not done							Di	+	+	N	N	
9	I	I	N	N	N	I	I	N	+	Erd.		+					Di	+	+	N	N	
10	De.	I	N	N	N	R	I	N									Di	+	+	N	N	
11	I	I	N	N	N	I	I	N		Not done							N		+	N	Prolif	
12	De.	I	N	N	N	I	I	N		Not done										Not done		
13	N	I	N	Atten.	N	I	I	N		Not done							N	+	+	N	N	
14	N	N	N	N	N	N	I	N		Not done							Di	+	+	Deg.	N	
15	N	I	N	N	N	N	I	N	+	Not done										Not done		
16	I	I	Dil.	N	N	N	N	N									Di	+	+	Deg.	N	
17	I	I	N	N	N	N	I	N		Not done							Di	+	+	N	Prolif.	
18	I	I	N	N	N	N	I	N		Not done							Di	+	+	N	N	
19	De.	I	N	N	N	N	I	N	+	Erd.		+					Di	+	+	N	N	
20	I	I	N	N	N	N	I	N		Not done							Di	+	+	N	N	
21	I	I	N	N	N	N	I	N	+	1		+					N	+	+	Deg.	N	
22	De.	I	Dil.	N	N	N	I	N									Di	+	+	N	N	
23	I	N	N	N	N	N	I	N	+	1							Di	+	+	Deg.	N	
24	De.	I	N	Atten.	N	N	I	N	+	1		+					Di	+	+	N	N	
25	De.	I	Dil.	N	N	N	R	N	+	1		+					Di	+	+	N	N	
26	De.	I	N	N	N	N	I	N	+	Erd.		+					Di	+	+	N	N	
27	I	I	N	N	N	N	I	N	+	2		+					Di	+	+	Deg.	N	
28	I	I	N	N	N	N	I	N		Not done							Di	+	+	Fatty	N	
29	De.	I	N	N	N	N	I	Ab									Di	+	+	Deg.	N	
30	I	I	N	N	N	N	I	N									Di	+	+	N	N	

Table (39) Descriptive data of patients in group (II) .

No.	Sex	Age years	Complaint	Present History										Past History						Family History		General Examination					
				J	AD	AP	D	DC	Hem	M	OB	OB	Pru	Arth	B	O	Inj	BT	ET	VD	Hep	HV	Cons	SC	Wt(Kgs)	Ht(Cm)	Perc.
1	F	10 J.		+	-	-	-	-	-	+	+	-	-	-	-	-	-	-	-	-	-	+	-	25	10th	130	10th
2	M	13 A.D.		+	-	-	-	-	-	+	+	-	-	-	-	-	-	-	-	-	-	-	-	29	<5th	147	10th
3	F	2 J.		+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7	<5th	65	<5th	
4	M	15 A.D.		+	-	-	-	-	-	+	+	-	-	-	-	-	-	-	-	-	-	-	40	<5th	150	<5th	
5	F	8 Ac.Inc.L.Enz		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	28	>75th	124	<5th	
6	M	14 A.D.		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	32	<5th	140	<5th	
7	M	9 J.		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	20	<5th	110	<5th	
8	F	13 Ac.HSM		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	30	<5th	135	<5th	
9	M	8 Ac.Inc.L.Enz		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25	50th	130	>75th	
10	M	12 J.		+	-	-	-	-	-	+	+	-	-	-	-	-	-	-	-	-	-	-	45	>75	153	>75th	
11	M	16 H&M		+	-	-	-	-	-	+	+	-	-	-	-	-	-	-	-	-	-	-	36	<5th	150	<5th	
12	M	11 J.		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	23	<5th	128	<5th	
13	F	5 H&M		+	-	-	-	-	-	+	+	-	-	-	-	-	-	-	-	-	-	-	13	<5th	94	<5th	
14	F	6 Ac.Inc.L.Enz		+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	15	<5th	95	<5th	
15	F	13 A.D.		+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	36	10th	144	<5th	
16	M	8 J.		+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25	50th	122	<5th	
17	M	12 Ac.Inc.L.Enz		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	26	<5th	135	<5th	
18	F	7 Ac.HSM		+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	20	25th	104	<5th	
19	M	2 J.		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10	<5th	80	<5th	
20	M	10 A.D.		+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	30	50th	124	<5th	
21	F	5 Ac.HSM		+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	16	<5th	105	<5th	
22	M	7 A.D.		+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	24	>75th	120	50th	
23	M	12 Ac.HSM		+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	35	25th	135	<5th	

Table(40) Descriptive data of patients in group(II) "Continued"

NO.	General Examination										Abdominal Examination										C.B.C										
	Con.	P	J	Cy	CI	Pur	Scr.M	P.E	S.N	F.H	L.L.O	Chest & Heart Ex	AV	H.M	Lc	Lm	Le	Lc	SM	SY	SP	Se	Sc	As	HB	Plat	WBCs	A	T	L	P
1	N	+	-	-	-	-	-	-	-	-	-	Free	-	+	4	8	Sh	F	-	-	-	Not felt	-	-	-	8	115	5.1	+	-	-
2	N	+	-	-	-	-	-	-	-	-	Free	+	-	-	-	-	-	-	-	-	-	Not felt	-	-	+	8	60	8.8	+	-	-
3	N	+	-	-	-	-	-	-	-	-	Free	-	-	+	6	6	Sh	F	+	-	-	6	R	S	-	8	184	8.9	+	-	-
4	N	-	-	-	-	-	-	-	-	-	Free	-	-	-	-	-	-	-	-	+	-	Splenectomy	-	-	-	11	307	6.4	-	-	-
5	N	-	-	-	-	-	-	-	-	-	Free	-	-	-	-	-	-	-	-	-	-	Not felt	-	-	-	10	426	12.3	+	-	-
6	N	-	-	-	-	-	-	-	-	-	Free	-	+	-	4	10	R	S	-	+	-	Splenectomy	-	-	-	10	147	22.9	+	-	-
7	N	+	-	-	-	-	-	-	-	-	Free	-	-	-	6	6	R	S	-	-	-	Not felt	-	-	-	7	309	11.2	+	-	-
8	N	+	-	-	-	-	-	-	-	-	Free	-	-	+	8	8	Sh	F	+	-	-	4	R	F	-	7	128	5.1	+	-	-
9	N	+	-	-	-	-	-	-	-	-	Free	-	-	-	-	-	-	-	-	-	-	Not felt	-	-	-	10	246	5.4	+	-	-
10	Im.	+	-	-	-	-	-	-	-	+	Free	-	-	-	-	-	-	-	+	-	-	2	R	S	+	6	71	9.7	+	-	-
11	N	+	-	-	-	-	-	-	-	-	Free	-	-	-	2	-	Sh	F	+	-	-	6	Sh	F	-	8	107	3	+	-	+
12	N	+	-	-	-	-	-	-	-	-	Free	+	+	-	-	4	Sh	F	-	-	-	Not felt	-	-	+	9	146	3.6	+	-	-
13	N	-	-	-	-	-	-	-	-	-	Free	+	+	-	-	8	Sh	F	+	-	-	10	R	F	-	11	140	6	-	-	+
14	N	+	-	-	-	-	-	-	-	-	Free	+	+	6	6	Sh	F	+	-	-	-	12	Sh	F	-	8	214	5.8	+	-	-
15	N	+	-	-	-	-	-	-	-	-	Free	+	-	-	-	-	-	-	+	-	-	10	R	F	+	8	55	2.5	+	-	+
16	N	+	-	-	-	-	-	-	-	-	Free	-	-	-	-	-	-	-	+	-	-	10	R	F	-	7	186	15.3	+	-	-
17	N	-	-	-	-	-	-	-	-	-	Free	-	-	-	-	-	-	-	+	-	-	Not felt	-	-	-	11	949	7.7	-	-	-
18	N	+	-	-	-	-	-	-	-	-	Free	-	-	-	2	4	R	F	+	-	-	2	R	S	-	10	267	11.9	+	-	-
19	N	-	-	-	-	-	-	-	-	-	Free	-	-	-	6	6	Sh	F	+	-	-	6	R	S	-	3	344	7.3	+	-	-
20	N	+	-	-	-	-	-	-	-	-	Free	+	+	-	12	8	Sh	F	-	+	-	Splenectomy	-	-	-	7	191	16.4	+	-	-
21	N	-	-	-	-	-	-	-	-	-	Free	-	-	-	-	4	Sh	F	+	-	-	6	R	S	-	13	150	3.1	-	-	+
22	N	-	-	-	-	-	-	-	-	-	Free	+	+	-	8	8	Sh	F	+	-	-	10	Sh	F	-	9	139	5.4	+	-	-
23	N	-	-	-	-	-	-	-	-	-	Free	+	+	-	6	6	Sh	F	+	-	-	8	R	F	-	7	72	2.9	+	-	+

Table (41) Descriptive data of patients in group (II) " Continued".

No.	Liver Function Tests						P.T. > C	'Hep. Markers				Igs.			AUTOANTIBODIES			
	TB	DB	Alk	AST	ALT	P.P		Alb	HBsAg	HBcAb	HCV	G	M	A	ANA	SMA	AMA	LKM
1	5.1	2.4	469	178	174	7.1	4.2	6	+	+	-	N	I	I	1/20	-	-	-
2	2.1	0.7	438	321	111	7.3	2	8	-	+	-	I	I	I	1/80	-	-	-
3	11.7	4.9	751	872	500	7.5	4.1	4	-	+	-	I	I	I	1/80	-	-	-
4	0.5	0.1	143	26	24	8.6	4.8	2	-	+	-	I	I	I	1/80	-	1/20	C.1/20
5	0.4	0.1	219	42	21	7.8	3.7	0	+	+	-	I	I	I	1/80	-	-	C.1/20
6	1	0.2	219	110	50	9.2	3.8	1	-	+	-	I	I	I	>1/80	-	-	C.1/20
7	0.3	0.1	136	28	14	4.8	2.4	0	-	+	-	N	I	N	1/20	-	-	-
8	0.6	0.1	493	74	53	8.1	4.8	2	+	-	-	I	I	I	1/40	-	1/20	-
9	0.3	0.1	277	135	130	6.9	3.6	3	+	-	-	I	N	N	1/40	-	1/20	-
10	14	5.6	264	314	92	6.3	1.6	15	+	+	-	I	I	I	1/40	-	1/40	-
11	3.2	1	1021	118	63	7.5	2.7	6	-	-	+	I	I	I	1/40	-	-	-
12	1.4	0.6	315	102	38	6	3.1	9	-	-	+	I	I	I	1/20	-	1/40	-
13	22.4	11.6	972	447	230	6.8	3.6	2	-	-	+	I	I	I	1/20	-	1/20	-
14	2.7	0.5	633	92	137	7.5	3.9	4	-	-	+	I	I	N	1/40	-	1/20	-
15	1.2	0.2	449	54	35	6.8	3.3	3	-	-	+	I	I	N	1/40	-	-	-
16	3.3	0.8	230	180	158	7.9	4	2	-	-	+	I	I	I	1/40	-	1/40	-
17	0.5	0.1	291	46	33	7.8	4.3	2	-	-	+	I	I	N	1/40	1/40	-	-
18	0.3	0.1	149	63	74	6	3.8	1	-	+	+	N	I	N	1/20	-	1/20	C&P 1/20
19	0.4	0.1	235	61	60	7.3	4.2	2.5	+	+	+	I	I	I	1/40	-	-	-
20	2.1	0.3	392	62	43	8.3	4.2	3	+	+	+	I	I	I	1/40	-	1/40	C 1/20
21	2.8	1.7	554	257	191	6.3	2.8	4.5	+	-	+	I	I	N	1/40	-	1/40	C 1/20
22	1.9	0.7	307	1073	899	8.6	3.6	6	+	-	+	I	I	I	1/40	-	1/20	C 1/20
23	0.3	0.1	386	134	73	7.5	3.4	2	+	+	+	I	I	N	1/40	-	1/20	-

Table (42) Descriptive data of patients in group (II) "Continued".

No	Abdominal Sonar										Upper Endoscopy				Lower Endoscopy				Liver Biopsy				
	L.S.	L.Ec.	P.V.	H.V.	G.B.	S.S.	As.	Kid	E.V.	G	G.V	G.C.	M.C	R.P	R.U.	RS	Arch.	P.F.	P.Int.C	Hep.	Bile C.	Conclusion	
1	I	I	N	N	N	N	-	N	-	-	-	-	-	-	-	-	N	-	-	-	-	-	-
2	De.	I	N	N	N	I	-	N	-	-	-	-	-	-	-	-	Di	+	+	Deg.	Cholest.	C.H.	
3	N	N	N	N	N	N	-	N	-	-	-	-	-	-	-	-	Di	+	-	Deg.	N	Cirrhosis	
4	De.	I	N	N	N	R	-	N	+	Erd.	-	+	+	+	+	-	N	-	+	N	N	C.H.	
5	N	N	N	N	N	N	-	N	-	-	-	-	-	-	-	-	N	-	+	Deg.	N	C.H.	
6	I	I	N	N	N	R	-	N	-	-	-	-	-	-	-	-	N	-	+	Deg.	N	C.H.	
7	I	I	N	N	N	I	-	N	-	-	-	-	-	-	-	-	N	-	+	Deg.	N	C.H.	
8	I	I	N	N	N	I	-	N	-	-	-	-	-	-	-	-	N	-	+	Deg.	N	C.H.	
9	I	N	N	N	N	N	-	P	-	-	-	-	-	-	-	-	N	-	+	N	N	C.H.	
10	De.	I	Dil.	N	Ab.	I	+	N	+	2	+	+	+	+	+	-	Di	+	+	Deg.	Cholest.	Cirrhosis	
11	De.	I	N	N	N	I	-	P	+	Erd.	-	-	+	+	+	-	Di	+	-	Deg.	N	Cirrhosis	
12	De.	I	N	N	N	I	+	N	+	4	-	+	+	+	+	-	Di	+	+	Deg.	Cholest.	Cirrhosis	
13	I	I	N	Atten	Ab.	I	-	N	-	-	-	-	-	-	-	-	Di	+	+	Deg.	N	C.H.	
14	I	N	N	N	N	I	-	N	-	-	-	-	-	-	-	-	N	-	+	Deg.	N	C.H.	
15	De.	I	N	Atten	N	I	+	N	+	1	-	+	+	+	+	-	N	-	+	Deg.	N	C.H.	
16	I	I	N	N	N	I	-	N	-	-	-	-	-	-	-	-	N	-	+	Deg.	N	C.H.	
17	N	N	N	N	N	N	-	N	-	-	-	-	-	-	-	-	N	-	+	N	N	C.H.	
18	I	I	N	N	N	I	-	N	-	-	-	-	-	-	-	-	N	-	+	N	N	C.H.	
19	I	I	N	N	N	N	-	N	-	-	-	-	-	-	-	-	Di	+	+	Fatty	N	Cirrhosis	
20	I	I	N	Atten	N	R	-	N	-	-	-	-	-	-	-	-	N	-	+	Deg.	N	C.H.	
21	I	I	Dil.	N	Ab.	I	-	N	+	1	-	-	-	-	-	-	Di	+	-	N	Cholest.	C.H.	
22	I	I	Dil.	N	N	I	-	N	-	-	-	-	-	-	-	-	Di	-	-	-	-	Not done	
23	I	I	Dil.	N	N	I	-	N	-	-	-	-	-	-	-	-	Di	+	-	Deg.	N	Cirrhosis	

Table (43) Descriptive data of patients in group (III)

No.	Sex	Age years	Complaint		Present History												Past History					Family History		General Examination			
			Dur.		J	AD	AP	D	DC	Hem	M	OB	Pru	Arth	B	O	Inj	BT	ET	VD	Hep	HBV	Cons	SC	Wt (Kgs)	Perc.	Ht(Cm)
1	M	12 J.	2Y		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	38	50h	150	50h
2	M	2 Ac.HSM	1Y		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	15	>75h	85	25h	
3	M	13 A.D.	10Y		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	35	10h	142	<5h	
4	F	8 J	2Y		+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	20	10h	118	10h	
5	M	11 J	6M		+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	28	10h	129	<5h	
6	F	3 J	2Y		+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	13	25h	86	<5h	
7	F	13 J	1Y		+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	30	<5h	133	<5h	

F=Female, M=Male, Du=Duration, J=Jaundice, AD=Abdominal distension
 AC.HSM=Accidental hepatosplenomegaly, Ac.Inc.L.Enz=Accidental increased liver enzymes
 H & M=Haematemesis and Melaena, AP=Abdominal pain, D=Diarrhea
 DC Disturbed Consciousness, Hem=Haematemesis, M=Melaena, OB=Other bleeding, Pru=Pruritus,
 Arth=Arthralgia, B=Bilharziasis, O=Operations, Inj=Injections, BT=Blood Transfusion, ET=Exchange Transfusion,
 VD=Visiting Dentist, Hep=Hepatitis, HV=Hepatitis B Vaccine, Cons=Consanguinity, SC=similar condition Wt=Weight
 Perc=Percentile, Ht=Height.

Table (44) Descriptive data of patients in group (III) "Continued"

NO	General Examination										Chest &				Abdominal Examination										C.B.C						
	Con.	P	J	Cy	Cl	PUR	Scr.M	P.E	S.N	F.H	L.L.O	Heart Ex	AV	HM	Lc	Lmi	Le	Lc	SM	SY	SP	Se	Sc	As	HB	Plat	WBCs	A	T	L	P
1	N	-	-	-	-	-	-	-	-	-	-	Free	-	-	-	Not felt	-	-	-	-	4	R	S	-	11.5	151	6.1	-	-	-	-
2	N	-	-	-	-	-	-	-	-	-	R bronchitis	-	+	2	-	R	S	-	-	-	-	Not felt	-	-	10	376	19	+	-	-	-
3	N	-	-	-	-	-	-	-	-	-	Free	+	+	4	B	Sh	F	+	-	-	8	R	F	-	10	231	4.5	+	-	+	-
4	N	+	+	-	-	-	-	-	-	-	Free	-	+	6	B	Sh	F	+	-	-	6	R	S	-	8	518	4.5	+	-	+	-
5	N	+	+	-	-	-	-	-	-	-	Free	-	+	4	-	Sh	F	+	-	-	6	R	F	-	8	174	7.2	+	-	-	-
6	N	-	+	-	-	-	-	-	-	-	Free	-	-	-	-	Not felt	-	-	-	-	4	R	F	-	10	125	7.6	+	-	-	-

Con. = Consciousness, Im = Impaired, P = Pallor, Cy. = Cyanosis, Cl. = Clubbing, Pur. = Purpura, Scr. M. = Scratch Marks, P.E = Palmar e or navel, FH = Foetal hepaticus
 L.L.O = Lower limb oedema, AV = Abdominal wall veins, HM = hepatomegaly, Lc = Liver midclavicular line(cm.), Lmi = Liver midline(cm.), Le = Liver edge
 Lc = Liver consistency, SM = splenomegaly, SY = splenectomy, SP = Spleen (Cm.), Se = Splenic edge, Sc = Splenic consistency, R = Rounded, Sh. = Sharp, F = Firm, S = Soft, AS = Ascites
 C.B.C. = Complete Blood Count, HB = Hemoglobin g /dl, WBCs = White blood cells
 Plat = platelets, A = anaemia, L = leucopenia, T = thrombocytopenia, P = pancytopenia

Table (45) Descriptive data of patients in group (III) "Continued "

No.	Liver Function Tests						PT	Hep. Markers			Igs.			Diagnosis	AUTOANTIBODIES				
	TB	DB	Alk	AST	ALT	P.P		Alb	HBsAg	HBcAb	HCV	G	M		A	ANA	SMA	AMA	LKM
1	1	0.2	1385	50.3	60.4	5.4	2.9	4.5				I	I	N	1/20				
2	0.3	0.1	234	35	22	6.9	4	12				I	I	N	1/20				
3	0.6	0.1	203	27	19	4.5	2.4	1.5				I	I	I	1/40				
4	7.9	4.7	518	155	152	7.3	3.5	3				I	I	I	1/20				
5	5.4	2.1	187	211	82	7.4	2.5	4				I	I	I	1/20				
6	7	3.8	472	75	49	6.4	3.6	1				N	I	N	1/20				
7	3.1	1.3	2007	126	93	6.3	3	0				I	I	N	1/20				

TB = Total bilirubin, DB = Direct bilirubin, AST = Aspartate transaminase, ALT = Alanine transaminase, Alk. = Alkaline phosphatase

P P = Plasma proteins, Alb. = Albumin, P T > C = Prothrombin time in seconds more than control,

Hep. Markers = Hepatitis Markers, HBsAg = Hepatitis B surface antigen, HBcAb. = Hepatitis B core antibody,

HCV = HANA = Anti nuclear antibody,

SMA = Smooth muscle antibody, AMA = Anti mitochondrial antibody, LKM = Liver kidney microsomal antibodies,

ANCA = Anti neutrophil cytoplasmic antibody, Sp = Speckled, H = Homogeneous, C = Cytoplasmic,

p = Perinuclear.

Table (46) Descriptive data of patients in group (III) "Continued"

No	Abdominal Sonar						Upper Endoscopy				Lower Endoscopy				Liver Biopsy								
	L.S.	Lec	P.V.	H.V.	G.B.	S.S.	As	Kid	E.V.	G	GV	G.C.	M.C	R.P	R.U.	RS.	Arch.	P.F.	P.Inf.C	Hep.	Bile C.	Conclusion	
1	I	I	N	N	N	I		N					+				Di	+	+	Deg.		Proliferation.	Cirrhosis
2	I	I	N	N	N	I		N			+					Not done	N	+	+	N			C.H.
3	I	I	N	N	N	I		N	+	Erd.			+				Di	+	+	Deg.			Cirrhosis
4	N	I	N	N	N	I		N				+					Di	+	+	N			Cirrhosis
5	I	I	N	N	N	I		N		Not done						Not done	Di	+		N			Cirrhosis
6	De	I	N	N	N	N		N								Not done	Di	+	+	Deg.			Cirrhosis
7	I	N	Di	N	N	I		N			+						N	+	+	N			C.H.

L.S. = Liver size , Lec. = Liver echogenicity , P.V. = Portal vein , H.V. = Hepatic vein, G B =gall bladder , SS = Spleen

AS = Ascites, Kid = Kidney,N=Normal, De = Decreased, I =increase,Atten = Attenuated , dil = dilated
 EV = oesophageal varices , GV = gastric varice erd=eradicated
 GC = Gastric Congestion, G = Grade, MC= mucosal Congestion, RP = Rectal Piles , RU = Rectal Ulcer ,
 RS = Rectal anip for bilharzial ova, Arch =Architecture, PF = Portal Fibrosis, P Inf.C = Portal Inflammatory Cells , Hep.= Hepatocytes
 Bile C =Bile Canaliculi , Di = disturbed , Deg = Degeneration , Prolif = Proliferated ,
 C.H. = Chronic Hepatitis , F = Fibrosis , Subacute H.Necr = Subacute Hepatic Necrosis .
 C.H. = Chronic Hepatitis , F = Fibrosis , Subacute H.Necr = Subacute Hepatic Necrosis .

Fig.1. ANA :Homogenous pattern

Fig.2. ANA :Speckled pattern

Fig. 4. SMA

Fig. 4. AMA and antiparietal cell antibodies

Fig.6. LKM

Fig.6 a: c-ANCA

Fig.6 b: p-ANCA