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Liv.52 therapy in viral hepatitis

(A Clinical-Biochemical Study)

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Rowland (1972) in his study on epidemiology of infectious hepatitis has said that persons of all races and all ages are susceptible to infectious hepatitis. In India, poor sanitary conditions along with lack of personal cleanliness and poor diet contribute to its spread. The disease causes a lot of morbidity and mortality amongst the affected population.

So far no specific treatment has been found for the disease. As rightly pointed out by Sherlock, "There have been no revolutionary advances in the treatment of viral hepatitis whether type A or B and the present supportive treatment has little effect in altering the course."

An indigenous drug combination, Liv.52 marketed by The Himalaya Drug Co. has been reported to offer major benefits in such cases, which have been proved experimentally and clinically by various authors. The advantages are as follows:

Liv.52
— prevents hepatic damage
— promotes hepato-cellular repair and regeneration
— prevents hazardous sequelae
— stops nausea, vomiting and pruritus
— restores appetite and sense of well-being
— shortens the therapy by achieving early recovery.

Considering the facts it was proposed to conduct a clinical trial of Liv.52 in cases of viral hepatitis occurring amongst BSF personnel of West Bengal.

MATERIAL AND METHODS

The present study is based on 53 cases of viral hepatitis admitted to the BSF Base Hospital, Kadamtala between 1973 to 1976. The age group was 18 to 45 years. Out of the total of 53 cases, 30 cases treated with Liv.52 tablets alone comprised Group A and the rest of 23 cases treated with Vitamin B-Complex, Vitamin C and antibiotics and oral corticosteroids (in 10 cases only) comprised Group B, to serve as Control. The patients of both groups were kept on plenty of glucose and a low-fat diet till their serum bilirubin level fell below 1 mg%..

A detailed history was taken in all cases with special emphasis on nausea, vomiting, loss of appetite, pruritus, colour of stools and urine, abdominal pain and dyspeptic symptoms.

A thorough clinical examination was done in all cases, and the following points were noted specially : colour of conjunctiva and clinical assessment of jaundice, enlargement of liver, spleen and hepatic tenderness.

In all cases, besides routine blood and urine examination the following special laboratory investigations were carried out:

1. Serum bilirubin
2. Zinc sulphate turbidity
3. Serum alkaline phosphatase
4. Urobilinogen in urine.

The above biochemical tests were repeated after 2 weeks and then again after 4 weeks of therapy to determine the progress.

OBSERVATIONS

Our observations were as follows:

Symptomatology		
	No. of cases	Percentage
Loss of appetite	53	100.0%
Fever	21	39.6%
Nausea	49	92.4%
Vomiting	4	7.5%
Pruritus	1	1.9%
Highly coloured urine	53	100.0%

Clinical signs before therapy			
Signs	No. of cases		
	Mild	Moderate	Severe
Jaundice	2	39	12
Enlargement of liver	30	21	2
Hepatic tenderness	12	38	3
Splenomegaly	2	Nil	Nil

Groupwise report of biochemical tests before therapy				
			No. of Cases	
			Group A (Liv.52)	Group B (Control)
A.	Serum Bilirubin			
	(a)	0.5 mg% to 2 mg%	4	5
	(b)	3 mg% to 5 mg%	22	16
	(c)	6 mg% to 10 mg%	4	2
B.	*Zinc Sulphate Turbidity*			
	(a)	12 to 20 units	10	8
	(b)	21 to 25 units	18	14
	(c)	26 to 30 units	1	1
	(d)	Above 31 units	1	Nil
C.	*Serum Alkaline Phosphatase*			
	(a)	5 to 10 B.U.	7	4
	(b)	11 to 15 B.U.	20	17
	(c)	16 to 20 B.U.	2	1
	(d)	21 above B.U.	1	1
D.	*Urobilinogen in Urine*			
	(a)	5 to 10 mg/24 hrs.	4	2
	(b)	11 to 15 mg/24 hrs.	10	11
	(c)	16 to 20 mg/24 hrs.	14	9
	(d)	21 mg above in 24 hrs.	2	1

RESULTS AFTER THERAPY

Improvement in symptomatology		
Symptoms	(No. of days)	
	Group A (Liv.52)	Group B (Control)
Anorexia	10	10 - 15
Nausea	3	4 - 6
Abdominal pain and dyspepsia	12	12 - 20
Jaundice	10	10 - 12
Hepatic tenderness	12	10 - 15

Groupwise result of biochemical investigation after therapy									
			After 2 weeks				After 4 weeks			
			A (Liv.52)		B (Control)		A (Liv.52)		B (Control)	
			No.	%	No.	%	No.	%	No.	%
A.	*Serum Bilirubin*									
	(a)	Between 0.5 to 0.7mg%	2	6.6			29	96.7	18	78.3
	(b)	Below 2 mg%	18	60.0	2	8.7	1	3.3	4	17.4
	(c)	Below 5 mg%	9	30.0	20	86.9			1	4.3
	(d)	Above 5 mg%	1	3.3	1	4.3				
B.	*Zinc Sulphate Turbidity*									
	(a)	Below 12 Units	1	3.3			26	86.7	16	69.6
	(b)	Between 13 to 20 units	28	93.3	19	82.6	4	13.3	7	30.4
	(c)	Above 21 units	1	3.3	4	17.4				
C.	*Serum Alkaline Phosphatase*									
	(a)	Below 5 B.U.					25	83.3	15	65.2
	(b)	Between 5 to 10 B.U.	22	73.3	13	56.5	5	16.7	7	30.4
	(c)	Above 10 B.U.	8	26.7	10	43.5			1	4.3
D.	*Urobilinogen in Urine*									
	(a)	Below 5 mg/24 hrs.	1	3.3			29	96.7	19	82.6
	(b)	Between 6 to 10 mg in 24 hrs.	22	73.3	15	65.2	1	3.3	4	17.4
	(c)	Above 10 mg in 24 hrs.	7	23.3	8	34.8				

SUMMARY

1. The present study was undertaken in 53 cases of viral hepatitis admitted to BSF Base Hospital.

2. Thirty cases were treated with Liv.52 tablets alone, whereas the remaining 23 cases were administered Vitamin B-Complex, Vitamin C and antibiotics. Ten of the latter group were also given corticosteroids. These 23 cases served as the Controls.

3. In the Liv.52 group, serum bilirubin values returned to normal within 2 weeks in 6.6% cases but in none of cases of the Control group. After 4 weeks' therapy serum bilirubin dropped below 5 mg/24 hours in 96.7% cases on Liv.52 as against 78.3% cases in the Control group.

4. Zinc sulphate turbidity tests showed normal values in 3.3% cases after 2 weeks and in 86.7% cases after 4 weeks on Liv.52, whereas only 69.6% cases in the Control group attained normal values after 4 weeks.

5. Serum alkaline phosphatase values returned to normal in 83.3% of Liv.52 cases as against 65.2% Control cases, after 4 weeks' therapy.

6. Urobilinogen values fell below 5 mg/24 hours in 3.3% cases after 2 weeks and in 96.7% cases after 4 weeks on Liv.52 whereas 82.6% of Control cases attained normal values only after 4 weeks.

7. All symptoms of anorexia, nausea, abdominal pain, dyspepsia, jaundice and hepatic tenderness were relieved earlier in the Liv.52 group than in the Control group.

CONCLUSION

This study reiterates the value of Liv.52 in the treatment of viral hepatitis. Liv.52 relieved symptoms of jaundice, loss of appetite, nausea, vomiting and abdominal pain earlier than other chemotherapeutic agents including antibiotics and corticosteroids. The biochemical findings were equally impressive with Liv.52. The early normalisation of serum bilirubin, zinc sulphate turbidity, serum alkaline phosphatase and urobilinogen values proved an index of rapid hepato-cellular regeneration and reduction in intrahepatic oedema and cellular infiltration with Liv.52. Thus, Liv.52 relieved cholestasis earlier than in the Control group.

We may, therefore, conclude that Liv.52 has evident anti-inflammatory, hepatic stimulant and choleretic properties which justify its value in uncomplicated cases of viral hepatitis. No untoward side-effects were encountered with Liv.52 therapy during the study.