



The patients mostly came from the low and poor socio-economic group. The intensity of the disease varied from case to case. A large number of cases were in the precoma or coma state. Clinical evaluation of symptomatology in these cases revealed the data as shown in Tables II and III.

<b>Table II: Sex distribution</b>				
Sex	Liv.52 group		Without Liv.52	
	No. of cases	%	No. of cases	%
Males	47	60.3%	77	53.5%
Females	31	39.7%	67	46.5%
Total	78	100%	144	100%

<b>Table III: Socio-economic group</b>				
Income group	Liv.52 group		Without Liv.52	
	No. of cases	%	No. of cases	%
Upper	7	9.0%	11	7.6%
Middle	67	85.9%	128	88.9%
Lower	4	5.1%	5	3.5%
Total	78	100%	144	100%

A study of the clinical symptomatology showed that a large number of patients were in the acute fulminating stage of the disease as this study was during the period of an epidemic as could be seen by 11 cases in confused mental state, 9 semiconsciousness and 4 in coma i.e.. 24 cases out of 78 in the Liv.52 group and 44 cases in confused mental state, 49 semiconsciousness and 43 in coma in the control group. Some of the cases might have lapsed from one stage of consciousness to another and there may be some degree of overlapping but these symptoms bring out that the group of cases were acute and severe with a fair degree of presumed hepatic damage.

<b>Table IV: Showing signs and symptoms</b>				
Symptoms & signs	Liv.52 group		Without Liv.52	
	No. of cases	%	No. of cases	%
Fever	50	64.1%	112	77.8
Yellow urine	57	73.1%	121	84.0%
Jaundice	66	84.6%	123	85.4%
Pain in abdomen	34	43.6%	64	44.4%
General bodyache	10	12.8%	14	9.7%
Pruritus	7	9.0%	5	3.5%
Anorexia	47	60.3%	53	36.8%
Nausea	28	35.9%	39	27.1%
Vomiting	33	42.3%	40	27.8%
Confused mental state	11	14.1%	44	30.6%
Semiconsciousness	9	11.5%	49	34.0%
Coma	4	5.1%	43	29.9%
Concomitant pregnancy	4	5.1%	27	18.7%
Enlarged and palpable liver	37	47.4%	56	38.9%
Enlarged and palpable spleen	5	6.4%	12	8.3%
Ascites	16	20.5%	22	15.3%
Clinical discernible cirrhosis of liver	8	10.2%	17	11.8%
Portal hypertension	3	3.8%	6	4.2%

<b>Table V: Laboratory studies showed the following on urine examination</b>				
Urine	Liv.52 group		Without Liv.52	
	No. of cases	%	No. of cases	%
Urine bile salts present	31	39.7%	36	25.0%

Urine bile pigments present	40	51.3%	47	32.6%
Urine albumin present	62	79.5%	15	10.4%
Sugar in urine	—	—	—	2.8%

## RESULTS

Results	Liv.52 group		Without Liv.52	
	No. of cases	%	No. of cases	%
Good	35	44.9%	20	13.9%
Fair	18	23.1%	37	25.7%
Died	15	19.2%	68	47.2%
Otherwise dropped from study	10	12.8%	19	13.2%
Total	78	100%	144	100%

In the Liv.52 group initial levels of total serum bilirubin varied from 22.8mg to 2.3 mg and gradually returned to normal. Direct serum bilirubin levels also followed to the total serum bilirubin. Serum alkaline phosphatase and thymol turbidity tests also showed significant improvement. Initial SGPT levels ranged from 1660 to 250 and gradually came down. Total serum proteins were not affected significantly.

In the group without Liv.52, out of 144 cases, initial level of serum total bilirubin varied from 25.8 mg to 2.4 mg and direct serum bilirubin from 15.8 k to 1.5 mgm%. Serum alkaline phosphatase and thymol turbidity tests were initially high and in many cases did not return to normal soon. SGPT levels varied from 1870 to 350 and remained high in acute, precoma and coma cases. Total serum proteins were not affected significantly.

The results were considered very good when the clinical response was good, laboratory findings showed improvement and returned to normal almost within a week and the patient was cured; fair when there was slow but definite clinical and biochemical progress towards normality. It took two, three and even four weeks in serious cases to come to normal. Results were considered poor when there was no response—clinical or laboratory.

In the Liv.52 group, out of 78 cases, the results were good in 35, fair in 18, and 15 patients expired, while out of the 144 control cases, the results were good in 20, fair in 37 and 68 patients expired.

## REFERENCES

1. Deshpande, R.S. *et al.*, *Probe* (1972): 2, 105.
2. Joglekar, G.V. and Leevy, C.M., *Probe* (1972): 2, 81.
3. Arora, Major J.K., *A.F.M.J.* (1969): XXV, 3362.
4. Dave, D.S. *et al.*, *Probe* (1972): 4, 214.
5. Prof. Gupta, S. *et al.*, *Probe* (1972): 2, 93.
6. Patel, Surg. Capt. J.R., *Probe* (1963): 2, 19.
7. Ramalingam, V. *et al.*, *Probe* (1972): 3, 157.
8. Sule, C.R. *et al.*, *J. Ind. med. Prof.* (1968): 12, 6391.