[***Capsule*** (19____???): (XV), 8, 170-175]

Preliminary Observation on the Role of Liv.52 in Infective Hepatitis with Persistent Jaundice

Rath, B.B., *M.D.,* Registrar, Department of Medicine,
Sengupta, S.N., *M.B.,B.S., F.R.C.P., F.C.C.P., F.I.C.A.,* Professor and Head of the Department of Medicine,
and
Bose, S.N., *M.Sc., D.Phil.,* Asst. Prof., Department of Biochemistry,
Bankura Sammilani Medical College and Hospital, Bankura, West Bengal, India.

INTRODUCTION

Viral hepatitis poses a great problem in our country with a high degree of morbidity. Frequently it predisposes to more serious complications like post-hepatic cirrhosis, sub-acute necrosis and hepatic failure. Rarely, the disease may be fulminant and death ensues rapidly from massive hepatic necrosis, particularly in those cases where the liver suffers from nutritional deficiencies, so common in Asia and Africa (Davidson, 1968). The therapy of this condition, therefore, assumes immense importance as morbidity and mortality are quite high in this part of the globe, where under nutrition and malnutrition are quite frequent. But surprisingly there is no specific therapeutic agent in this condition and the treatment is merely symptomatic and supportive.

With the advent of Liv.52, an indigenous drug marketed by The Himalaya Drug Co., Bombay, a new approach to this problem has been possible. Over the years, a considerable number of clinical and experimental trials have been carried out with this drug by various workers. Using different parameters of liver function tests, these workers have consistently confirmed that Liv.52 accelerates the clinical and biochemical recovery (Sule *et al.,* 1956, 1957, Patrao, 1957, Sheth *et al.,* 1960, Menon and Ravindran, 1966, Arora, 1969). Remarkable clinical improvement was observed in cases of viral hepatitis after Liv.52 therapy by Prasad *et al.,* 1969, 1971 and Dayal *et al.,* 1971. Mukerjee and Dasgupta, 1971, observed that in viral hepatitis, Liv.52 improved the body weight, reduced the period of illness and residual liver damage.

These observations prompted us to study the effect of Liv.52 in cases of infective hepatitis with persistent jaundice.

MATERIAL AND METHODS

Fifteen cases of infective hepatitis with persistent jaundice (persistent for more than 6 weeks) admitted into the medical wards of B.S.M.C.H. during the period from January 1975 to July 1975 formed the material for this study. A thorough clinical examination was performed with special reference to the degree of jaundice, liver size, subcutaneous haemorrhage, and evidence of liver cell failure. Routine examination of stool and urine was done. Biochemical investigations like serum albumin, globulin, SGOT, serum bilirubins were done. A 45 minute B.S.P. excretion test was performed. Needle biopsy of the liver was carried out with appropriate precautions. Liv.52 was prescribed in the dose of 2 tablets t.i.d. The patients were examined every week and their general feeling, degree of jaundice and liver size were noted. At the end of 8 weeks, B.S.P. excretion test and liver biopsy were repeated and the results were evaluated.

OBSERVATIONS AND RESULTS

Out of fifteen patients selected for the study, 8 could complete the trial. Of the remaining 7, five could not be followed up. One died of massive hepatic necrosis on the second day of the study and the other refused to undergo liver biopsy and other tests at the end of the trial.

Age and Sex: Seven were males and 1 female. Age ranged between 16 to 46 years. Two patients were above 40 years.

Duration of jaundice: All had jaundice for more than 6 weeks. Two patients had received corticosteroids previously, which were discontinued at the start of the trial. Jaundice disappeared at the end of 8 weeks in all patients except one.

Hepatomegaly: All patients had hepatomegaly – the liver was palpable more than 1½" below the right costal margin. One of the patients had features of hepatocellular failure. There was no significant reduction in the liver size during the trial.

General feeling and appetite: All patients experienced a feeling of general well-being from the second week of the trial. Appetite improved in all cases.

Serum bilirubin: Levels of serum bilirubin ranged from 1.4 mg% to 6.3 mg% in the pre-treatment period. While 5 patients had bilirubin level of more than 3 mg%, 2 had between 2 mg% and 3 mg% and the level was below 2 mg% in only one patient. After institution of the treatment, and level of serum bilirubin showed a tendency to fall by the end of the 2nd week and at the end of 8 weeks all the patients had normal bilirubin level except one. This patient had initially a bilirubin level of 6.3 mg%, which reduced to 2 mg%.

B.S.P. excretion test: The B.S.P. excretion was abnormal in all patients in the pre-treatment period. More than 30% of the dye was retained at the end of 45 minutes in 5 patients, while 11% to 30% retention was found in the other 3 patients. After 8 weeks of treatment, the B.S.P. excretion became normal in all patients except one, who retained 9.8% of the dye at the end of 45 minutes. This is the same patient who continued to have a high bilirubin level at the end of the treatment.

Liver biopsy: Liver biopsies could be performed in only 4 patients. Three patients initially showed focal changes of fibroblastic proliferation and fatty infiltration. However, the picture improved significantly at the end of therapy. One patient had histopathological changes of cirrhosis, which remained unchanged after treatment for 2 months.

DISCUSSION

Infective hepatitis is a viral infection of the liver. Although it is responsible for high morbidity and low mortality, it frequently predisposes to irreversible liver damage and leads to cirrhosis. Unfortunately there is no specific drug for the satisfactory treatment of this condition. As Liv.52 has been found to have a beneficial effect (Mukerjee A.B. and Dasgupta, M., 1970, 1971; Prasad, 1971 and Seth, 1970), it may be worth trying Lvi.52 in virus hepatitis.

The natural course of this disease is self-limiting and jaundice disappears within a period of 4-6 weeks. However, in all our patients the jaundice had persisted for more than 6 weeks before the Use of Liv.52. After commencement of the treatment with Liv.52, jaundice gradually diminished in intensity as evidenced by gradual lowering of the serum bilirubin level over a period of 2-6 weeks. This result is definitely encouraging. Moreover, liver functions improved considerably after treatment as evidenced by lowering of the B.S.P. retention, which came to normal level in all the patients who completed treatment excepting one. Liver biopsy could not be done in all patients. Four patients had repeat liver biopsy done at the end of the therapy of 2 months. While three patients showed histological improvement, one patient had cirrhotic changes in the liver, which remained unchanged after 2 months. The patient who had histological changes of cirrhosis, showed high serum bilirubin level and abnormal B.S.P. excretion, after 8 weeks of treatment with the drug. However, these levels were gradually being reduced from the pre-treatment period. These results

agree with those of Arora, 1969, Doddagoudar, 1970, Jaffari, 1969, Mukerjee and Dasgupta, 1970, Sule, 1968.

The present study comprises of a small number of patients, with no control or crossover method. Yet the clinical as well as biochemical improvements have convinced us that Liv.52 is beneficial in cases of infective hepatitis with persistent jaundice.

REFERENCES

1. Arora, Major J.K., 'Role of various types of treatment in infectious hepatitis', *Armed Forces Med. J.* (1969): 3, 362.

2. Doddagoudar, M.B., *M.B.,B.S.,* 'Infective hepatitis–Survey and study of 110 cases', *Probe* (1970): 3, 122.

3. Jaffari, S.M.H., *M.B.,B.S., M.R.C.S., M.R.C.P.I.,* Shyam Raj, *M.D. (Paed.),* 'Liv.52 in Infective Hepatitis', *The Antiseptic* (1969): 5, 353.

4. Menon, T.M. and Ravindran, P., *M.B.,B.S.,* 'Infective Hepatitis (Observations during a Recent Outbreak)', *The Antiseptic* (1966): 63, 265.

5. Mukerjee, A.B., *M.D. (Cal.), F.R.C.P. (Lond.),* and Dasgupta, M., *M.D., (Cal.),* 'Treatment of Viral Hepatitis by an Indigenous Drug–Liv.52', *Indian Practitioner* (1970): 6, 357.

6. Murkibhavi, G.R., *G.B.V.C., M.S. (Kansas)* and Sheth, U.K., *M.D., F.C.P.S., B.Sc.,* 'Treatment of Jaundice in Dogs with an Indigenous Preparation–Liv.52', *Ind. Vet. J.* (1957): 4, 276.

7. Prasad, Lala Surajnandan, *F.R.C.P. (Edin.), D.C.H. (Lond.), F.A.A.P. (Hon.)* and Prasad, Kaleshwar, *M.B.,B.S.,* 'Some Observations on Liv.52 in the Treatment of Infective Hepatitis and Cirrhosis of Liver', *Probe* (1971): 3, 114.

8. Sule, C.R., *M.D.,* Pai, V.R., *M.D.,* Damania, R.F. and (Miss) Joshi, V.S., *M.B.,B.S.,* 'Studies with Liv.52 therapy in Infective Hepatitis', *J. Ind. Med. Prof.* (1968): 14, 6391.