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Hepatic Cirrhosis in the Tropics

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The clinical features of cirrhosis of the liver were described by the Indian physician Charaka about 2,500 years ago. Charaka enumerated anorexia and flatulent dyspepsia as symptoms and ascites, abdominal venous prominence, hepatosplenomegaly and pinched facies as the principal signs of cirrhosis of the liver. Since then, naturally, considerable advances have been made in our knowledge of the physiology and pathology of the liver. However, the concept of cirrhosis of the liver and its prognosis still remain undecided. As for the aetiology of cirrhosis of the liver, widely divergent views are held. However, widespread fibrosis with destruction of the liver parenchyma along with simultaneous regeneration is universally accepted as the principal criterion of the disease. For the clinician who has to depend on a needle biopsy for establishing his diagnosis, the definition suggested by Gall (1960) that cirrhosis of the liver is "a widely distributed hepatic fibrosis stemming from parenchymal necrosis or persisting inflammation", is most helpful.

Though there is no specific therapy for the disease, the outcome and the activity of the disease can be ascertained by correlation of laboratory findings and symptomatology-hepatocellular insufficiency and portal hypertension.

In view of the world-wide prevalence of the disease an attempt has been made to evaluate the aetiological factors along with the histological factors along with the histological types seen in this country.

MATERIAL AND METHODS

Observations on the clinical course of the disease in 210 consecutive cases seen during 1963-70 in a liver clinic have been recorded. All the patients were hospitalised and a needle biopsy and biochemical tests were done to confirm the diagnosis.

Histopathological examination revealed that the commonest type was the post-necrotic variety (70 per cent). The incidence of nutritional type of cirrhosis was 16.2 per cent and that of post-hepatic variety was 11.4 per cent.

Twenty per cent of the 210 (42 patients) were arbitrarily picked for a controlled clinical trial to study the efficacy of the indigenous remedy Liv.52 in cirrhosis of the liver. In 27 cases Liv.52 was given for up to 9 months and the remaining 15 cases served as controls. The cases were divided into three groups viz. A, B and C, according to the period of therapy for 3, 6 and 9 months, respectively. The result of therapy was assessed from the clinical standpoint, histopathological studies and biochemical tests such as serum bilirubin, albumin, globulin, alkaline phosphatase, S.G.O.T., S.G.P.T. and standard B.S.P. tests.

OBSERVATIONS

In the 210 cases the aetiopathogenesis was contributed to by viral hepatitis (36% cases) alcohol (30% cases) and parasitic infestations. A history of an abdominal operation was obtained in 10 cases and dropsy caused by clinical toxins in 4 cases. No obvious contributory factor could be determined in 82 of the 210 cases.

The clinical course of the disease can be altered by proper treatment which may gain compensation and thus prevent shortening of life. In the absence of any specific therapy conventional measures such as diuretics, vitamins, protein supplements, haematinics etc., may be tried.

In the controlled clinical trial with Liv.52 the results of hepatic function tests and needle biopsy specimens of the liver demonstrated definite improvement of hepatocellular function and return of the architectural pattern of the liver to normal. Statistical analysis showed the improvement to be highly significant in Group C who received Liv.52 for 9 months. The following table gives the statistical significance of Liv.52 therapy in the Liv.52 and placebo treated groups.

DISCUSSION

It was observed that the maximum incidence of cirrhosis of the liver was in the age group of 41 to 60 years which also recorded the highest mortality rate (13.6%). This suggests that the pathological process of cirrhosis of the liver is the end result of known or unknown factors which have been acting for a long time.

We found that a history of viral hepatitis was elicited from 36% of the cases, though additional factors such as addiction to alcohol, abdominal operation, malnutrition etc., were probably simultaneously operating.

The management of cirrhosis of the liver is a prolonged affair and prognosis is determined by early diagnosis and degree of hepatic cell damage as judged by biochemical tests of which serum albumin and globulin, zinc sulphate turbidity and S.G.P.T. level correlate best. In our series the hospital mortality rate was fairly high (33.76 per cent). Neglect, prior to admission to the hospital, and associated conditions such as peptic ulcer, ulcerative colitis, tuberculous lesions etc., have an important bearing on the outlook of the disease. Alcohol must be strictly prohibited in the patient with cirrhosis and in the absence of precoma a high protein diet with vitamins is of great help. Corticosteroids are of little use in the patient with post-necrotic cirrhosis specially when the condition is a sequel to chronic active hepatitis.

Since no specific treatment is available except portacaval shunt surgery in selected cases, conservative treatment has to be resorted to. Conservative treatment methods are, however, quite effective and may pay rich dividends by stopping the progress of the disease and sometimes reduce portal hypertension (Leevy *et al*, 1958; Atkinson, 1959; Vennes, 1966).

Table 1: Showing results of therapy with Liv.52 and placebo in the 42 cases with P values of liver function tests									
Group	Treated (months)	No. of cases	Albumin	Globulin	Bilirubin	Alk. Phosph.	S.G.O.T.	S.G.P.T.	B.S.P
Liv.52									
Group A	3	9	0.11	0.84	0.78	0.23	0.22	0.78	0.76
Group B	6	4	0.07	0.17	0.02	0.39	0.09	0.03	0.27
Group C	9	14	0.00	0.06	0.05	0.25	0.00	0.00	0.00
Placebo									
Group A	3	6	0.05	0.32	0.02	0.06	0.25	0.07	0.18
Group B	6	3	0.09	0.06	0.20	0.42	0.64	0.04	0.92
Group C	9	6	0.48	0.01	0.03	0.07	0.41	0.04	0.10

p<0.05 indicates a significant difference between pretreatment and post-treatment values. In the placebo group wherever, a significant change has occurred it is for the worse. Significant changes in the drug treated group are all towards improvement.

In 30 cases long-term follow-up was possible upto 6½ years. The results of the follow-up are recorded in Table 2.

Table 2: Showing long-term follow-up results in 30 cases			
No. of years	No. of cases followed up	Expired later	Still living
1	5	4	1
2	4	3	5
3	10	5	5
4	4	1	3
5	3	0	3
6½	4	0	4

In the controlled study of 42 patients the results showed overall improvement of liver function in the six and nine months' Liv.52 treated cases. Statistical evaluation of the same showed that Liv.52 gave excellent and highly significant results only in the group treated with Liv.52 for 9 months. Placebo treatment in all groups and Liv.52 treatment in other groups was not statistically significant. In the light of these results it is worthwhile searching for the active principals that made an important contribution to successful therapy with Liv.52.

SUMMARY

Two hundred and ten cases of cirrhosis of liver have been studied after confirming the diagnosis by liver function tests and needle biopsy of the liver.

A history of viral hepatitis was obtained in 36 per cent of the cases while addiction to alcohol was present in 30 per cent of the cases. The possible relationship of viral hepatitis and alcohol consumption with the aetiopathology of cirrhosis has been discussed.

The effectiveness of Liv.52 in the treatment of the condition has been studied in 42 cases subjected to a controlled clinical trial.

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