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Treatment of Alcoholic Cirrhosis of the Liver with High Vitamin Therapy.

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The recent studies of polyneuritis,^{1, 2, 3} pellagra,⁴ and beriberi heart⁵ have indicated that these diseases are due to nutritional lack, whether or not they are associated with alcoholism, and that they are alleviated by diets and medication rich in the vitamin B complex. It seemed pertinent to make a similar investigation of patients with alcoholic cirrhosis of the liver, to inquire into their diets, and to study the effect of high vitamin therapy on the course of this disease.

Thirteen patients with the diagnosis of alcoholic cirrhosis were observed. In all instances they were heavy, chronic drinkers of alcohol. Symptoms of gastro-intestinal disorder dominated the histories of these patients preceding their illness. In most instances diet and digestive functions were abnormal. In 9 cases the caloric intake was very low. Meat, green vegetables and fruit seldom were eaten. Corresponding weight losses occurred, varying from 9 to 49% of the usual weight in 10 of 13 cases.

Clinical Data. Although the diagnosis of cirrhosis cannot be proved without biopsy, the evidence of chronic liver injury seemed adequate. The diagnosis was based usually upon the history of alcoholism and the presence of a hard, palpable liver, esophageal varices, ascites, reduced dye excretion test, positive Takata Ara test, and altered serum proteins. All these signs were not exhibited by all cases.

In 10 cases the liver was palpably enlarged. Nine patients had ascites, and of these 6 also had edema of the ankles.

There was likewise evidence of specific malnutrition, notably of the vitamin B complex. Peripheral neuritis, glossitis, gastric acidity, pellagrous dermatitis, persistent tachycardia, anemia, and purpura were common.

¹ Wechsler, J. S., *Arch. Neur. and Psychiat.*, 1933, **29**, 813.

² Minot, G. R., Strauss, M. B., and Cobb, S., *New Eng. J. Med.*, 1933, **208**, 1244.

³ Jolliffe, N., Colbert, C. N., and Joffe, P. M., *Am. J. Med. Sci.*, 1936, **191**, 515.

⁴ Spies, T. D., Chinn, A. B., McLester, J. B., *J. A. M. A.*, 1937, **108**, 853.

⁵ Weiss, S., and Wilkins, R. W., *Trans. Assoc. Am. Phys.*, 1936, **51**, 341.

Observations have been made during a period of from 3 to 13 months. The patients were given diets which contained CHO 305, Protein 102, Fat 120. The standard daily medication contained Oleum Percomorphum 30 mins., orange juice 12 oz., Valentine's Liver Extract 2 oz., Vegex 3 drams, and parenteral crystalline vitamin B₁.* The latter was injected in daily doses varying between 4 and 10 mg. In 2 instances vitamin B₁ alone was administered.

Three patients died and 10 have been making steady improvement. General clinical improvement was evidenced by increased appetite, gain in weight, return of strength. In 7 cases a measured reduction in liver size occurred. Partial or complete recovery from associated conditions, such as glossitis, dermatitis, anemia, and neuritis generally was noted in those who improved.

There have been striking changes in several patients with ascites. Three patients previously had experienced repeated paracentesis; a fourth patient had received one paracentesis before entry, and 2 others with signs of ascites did not need tapping. In this group, after varying intervals of time there occurred diuresis and loss of ascites without recurrence.

Laboratory data reflected corresponding improvement: in 11 cases a rise of serum albumin; in 5 cases improved bromsulphalein test; in 6 cases reversal of Takata Ara test to negative. Whereas "spontaneous" improvement of mild cases is not uncommon, such changes as these in decompensated cirrhosis of the liver appear to be outside chance expectations.

Conclusions. 1. There appears to be a significant relationship between nutritional deficiency and alcoholic cirrhosis of the liver. 2. It is believed that patients with alcoholic cirrhosis of the liver are benefitted by high vitamin therapy.

* The crystalline vitamin B₁ was supplied by the courtesy of Merck and Co., Rahway, N. J., and of the Winthrop Chemical Co., New York City.