

contraction in cirrhosis, but cases in which marked enlargement of the liver is to be noticed as a precursor to its contraction are rare; ordinarily the enlargement is so very slight in degree that it cannot be positively determined, usually fatty degeneration precedes contraction causing slight enlargement, such a liver may be attacked by a more active inflammatory change causing acute symptoms which will be followed by rapid contraction.

In cirrhosis of the liver the chief and permanent pathological change consists in a growth of fibrous tissue throughout the organ, which like cicatricial tissue subsequently undergoes great contraction and exerts its evil influences principally through pressure; bearing this fact in mind, the clinical interpretation of any symptom occurring in the course of cirrhosis should be comparatively simple.

Pressure symptoms referable to the portal vein or its tributaries are the most prominent. Ascites, early in occurrence, persistent after its first appearance, and severe in degree, is the most distressing and also the most suspicious symptom of cirrhosis; the portal vein becomes early occluded and such occlusion obstructing the mesenteric veins leads to their dilatation and to constantly increasing ascites.

Hæmatemesis from obstruction to the egress of blood from the gastric vein assisted by associated cirrhosis in the gastric mucous membrane or acute inflammation of that membrane, together with occasional hæmorrhages from the bowels are serious symptoms.

Hæmorrhoids from pressure upon the lesser hæmorrhoidal veins, and enlargement of the superficial abdominal veins resulting from the same pressure, furnish a chain of symptoms the links of which are always more or less perfect and constant.

Together with the pressure from the growth and development of fibrous tissue within the organ, there is atrophy of the parenchymatous elements and the secretion of bile is more or less interfered with. Jaundice in cirrhosis is not usually a marked symptom, but may appear late in the disease, when it is apt to be persistent. During the so-called "congestive stage" of cirrhosis, attacks of jaundice may appear, when, if of long duration or very severe, they constitute a very unfavorable symptom. Severe jaundice occurring in a patient

who has been for many months the subject of cirrhosis, may be regarded as an alarming symptom, and such attack is often attended by acute delirium or by low muttering delirium, in which condition death occurs. It must not, however, be forgotten that true jaundice, *i.e.* where bile-coloring matter stains the skin and conjunctiva, and escapes with the urine, is not a common feature of cirrhosis. The sallowness of the face, and the dull dark skin which is so commonly seen in old drinkers, is not jaundice, nor is it at all certain that hepatic disorder has anything to do in producing this condition.

It is common enough to rely upon the history of the patient's habits, to determine the existence of cirrhosis, but nothing can be more misleading, whilst it is established that the abuse of alcohol is the common and potent cause of this condition, it is also established that cirrhosis may occur apart from alcoholism, and the differences of opinion regarding the form of beverage most liable to induce cirrhosis are endless.

And there can be no doubt that whilst many old toppers escape, after years of hard drinking, without any or with very slight disease, in others, very much smaller quantities of alcohol will produce very rapid and very serious tissue changes in the liver.

Many German authorities believe that malt liquor is as apt to induce cirrhosis as the strong spirits, and it is very probable that in individual cases they act as powerful factors. I think we must recognize the fact that the tendency to sclerosis of all organs is greatly predisposed to in some, and apt to follow upon trifling inflammations or slight congestions and if such be a fact, it is wrong to trust too much to the patient's history as proof of the impossibility of cirrhosis.

I would here submit a very excellent comparison, given by Woodhead, of the pathological changes between "common" and "biliary" cirrhosis.

#### *In Common Cirrhosis.*

1.—The bile ducts are but little involved in the growth of connective tissue, there is little or no jaundice or bile staining of the liver tissues, and no new bile ducts are found on microscopic examination.

#### *In Biliary Cirrhosis.*

1.—The bile ducts are the first structures involved the jaundice and bile staining of the liver substance is, as a rule, well marked and there is a new formation of bile ducts.