

the bile is still formed. Signs of portal obstruction are rare. Hæmorrhoids are not very infrequent. Altogether, the symptoms are ill-defined, and chiefly those of the disease with which the degeneration is associated. In cases of great obesity, the physical examination is uncertain; but in phthisis and cachectic conditions, the organ can be felt, greatly enlarged, smooth, and painless. Fatty livers are among the largest met with at the bedside.

VIII. AMYLOID LIVER.

The waxy, lardaceous, or amyloid liver occurs as part of a general degeneration, associated with cachexias, particularly when the result of long-standing suppuration.

In practice, it is found oftenest in the prolonged suppuration of tuberculous disease, either of the lungs or of the bones. Next in order of frequency are the cases associated with syphilis. Here there may be ulceration of the rectum, with which it is often connected, or chronic disease of the bone, or it may be present when there are no suppurative changes. It is found occasionally in rickets, in prolonged convalescence from the infectious fevers, and in the cachexia of cancer.

The amyloid organ is large, and may attain dimensions equalled only by that of the cancerous organ. Wilks speaks of a liver weighing fourteen pounds. It is solid, firm, resistant, on section anæmic, and has a semitranslucent, infiltrated appearance. Stained with a dilute solution of iodine, the areas infiltrated with the amyloid matter assume a rich mahogany-brown color. The precise nature of this change is still in question. It first attacks the capillaries, usually of the median zone of the lobules, and subsequently the interlobular vessels and the connective tissue. The cells are but little if at all affected.

There are no characteristic *symptoms* of this condition. Jaundice does not occur; the stools may be light-colored, but the secretion of bile persists. The physical examination shows the organ to be uniformly enlarged and painless, the surface smooth, the edges rounded, and the consistence greatly increased. Sometimes the edge, even in very great enlargement, is sharp and hard. The spleen also may be involved, but there are no evidences of portal obstruction.

The *diagnosis* of the condition is, as a rule, easy. Progressive and great enlargement in connection with suppuration of long standing or with syphilis, is almost always of this nature. In rare instances, however, the amyloid liver is reduced in size.

In *leukæmia* the liver may attain considerable size and be smooth and uniform, resembling, on physical examination, the fatty organ. The blood condition at once indicates the true nature of the case.

IX. DISEASES OF THE PANCREAS.

I. HÆMORRHAGE.

Of late years much attention has been paid to this condition, which may prove rapidly fatal and has important medico-legal bearings. F. W. Draper* has reported five cases, in all of which death occurred either suddenly or after a very short illness. The symptoms are thus briefly summarized by Prince:

"The patient, who has previously been perfectly well, is suddenly taken with the illness which terminates his life. . . . When the hæmorrhage occurs the patient may be quietly resting or pursuing his usual occupation. The pain which ushers in the attack is usually very severe, and located in the upper part of the abdomen. It steadily increases in severity, is sharp or perhaps colicky in character. It is almost from the first accompanied by nausea and vomiting; the latter becomes frequent and obstinate, but gives no relief. The patient soon becomes anxious, restless, and depressed; he tosses about, and only with difficulty can be restrained in bed. The surface is cold, and the forehead is covered with a cold sweat. The pulse is weak, rapid, and sooner or later imperceptible. The abdomen becomes tender, the tenderness being located in the upper part of the abdomen or epigastrium. Tympanites is sometimes marked. The temperature in most cases is either normal or below normal. The bowels are apt to be constipated. These symptoms continue without relief; those which are most striking being the pain, vomiting, anxiousness, restlessness, and the state of collapse into which the patient soon falls."

Post mortem, the pancreas is found uniformly infiltrated with blood. Death, as Zenker suggests, is probably due to shock through the solar plexus.

There are cases in which extensive hæmorrhage occurs into the mesentery, retroperitonæum, or mesocolon. In a patient of Bruen's, at the Philadelphia Hospital, who had for some days obscure abdominal symptoms, I found the entire mesentery and retroperitonæum infiltrated with blood-clots. There was no disease of the aorta or of the coeliac branches or of the mesenteric vessels. Isambard Owen has reported a case of sudden death in a woman aged sixty-seven from hæmorrhage into the transverse mesocolon.

* Transactions of the Association of American Physicians, vol. i.