

by Horup, Lancereaux, Arnold, Windrath, Waring, von Kahlden and others. Such tumors are said to arise from the walls of the portal vein and from the smaller bloodvessels, and von Kahlden states that frequently older cirrhotic changes in the liver exist as well. While the presence of cirrhotic changes is admitted by Quincke and Hoppe-Seyler to be a possible factor in causing the development of *carcinoma* of the liver, they do not admit that a similar cirrhotic condition is capable of producing *sarcomatous* growths. Those writers who believe that cirrhosis may cause sarcoma, do not quote any cases in which such a definite combination has been seen.

Secondary sarcomas occur in the form of metastatic tumor nodules scattered through the substance of the liver, or in the form of a diffuse sarcomatous infiltration. The primary seat of such a tumor is usually the skin or the choroid coat of the eye. The most frequent variety of secondary sarcomas is the melanotic sarcoma, the metastases of which give the liver a dark-brown or black appearance on section. The present sarcoma was not melanotic, and the pigmented coat of the eye and of the skin may be eliminated as a primary seat for this growth.

Its presence as a large tumor nodule in one lobe of the liver, unassociated with any other nodules of this organ and unassociated with any tumor nodules in other parts of the body, except the small metastases in the peritoneum and omentum, point to its being possibly primary in the liver. This cannot be stated with positiveness, however, for it is impossible to eliminate as the primary cause of any tumor masses in the liver a tumor of some one of the other organs, or some variety of cutaneous tumor which might have been removed years prior to the autopsy. It is a common occurrence in large autopsy-rooms to find secondary tumor masses in the internal organs of the body which give comparatively few symptoms during life, and which are not necessarily the cause of death, the presence of which is explained only by the discovery that the patient had, possibly some years previous to his death, some tumor removed from the skin or subcutaneous tissues.

The pea-sized bodies in the omentum and in the peritoneum were evidently derived from the tumor of the liver, or possibly from that tumor, which might have been the primary seat of both. At any rate, the presence of the sarcomatous mass in the liver is not explained unless it be considered as a primary tumor, and its association with cirrhosis of this organ must be considered quite unique. The examination of the literature of cirrhosis of the liver, especially the standard textbooks and the various medical indices, fails to reveal any quotations of a similar combination of sarcoma and cirrhosis, although such cases have doubtless been already reported, possibly under different names, yet the combination represented by the present case is, as far as we know, the first case to be reported in this country.