

In all acute infectious diseases the parenchyma of the pancreas, as of other glands, may be more or less affected by changes embraced under the name of cloudy swelling, which are supposed to be the initial stages of parenchymatous inflammation. In the class of cases under consideration at present, however, the changes are much more marked, and the interstitial processes are, no doubt, a large part of all instances of "genuine acute pancreatitis."

With regard to causation, acute pancreatitis is said to result in many cases from an "extension of a gastro-duodenal inflammation along the pancreatic duct." It may also depend upon hemorrhage, or be the cause of hemorrhage. In the following case the hemorrhage evidently accompanied or resulted from the inflammation, and did not cause it. No inflammatory process could be traced from the duodenum.

One of the most interesting, and at the same time difficult, problems in these cases is that of the accompanying fat necroses. Bacteria have been found in and around the necrotic patches by Chiari, and, as will be seen further on, the reporters of this case have also to speak of micro-organisms seen; but it is extremely doubtful whether these are more than accidental contaminations of the tissue. No proof can be offered of a causal relationship.

Balser concluded from examination of several cases of various diseases in which fat necroses existed along with other morbid conditions, that an *excessive growth* of fat cells may cause death of fat and be associated with hemorrhage, either the necrosis or hemorrhage causing the death of the patient. Such an explanation can be of no effect in the case we are to report, since the amount of fat present was by no means excessive in any part of the body, and, moreover, Virchow thought that the changes spoken of by Balser as fat necroses were merely cadaveric, as proven by the absence of any vital reaction in their neighborhood.

Robert Langshans, of Berlin, in a contribution to the *Festschrift*, dedicated to Virchow in honor of his seventieth birthday, describes a series of experiments made by him upon dogs and rabbits with the object of determining whether or not ferments derived from the pancreas itself could give rise to fat necroses. His procedure in conducting these experiments was quite simple, consisting in the injection into adipose tissue in the animals used of a watery solution of pancreas rubbed up in a mortar with fine glass. The results of twelve such experiments are tabulated, and in one only (a rabbit being the animal used) was any satisfactory conclusion reached. In this case fat necrosis, similar to that seen in cases of pancreatitis, was observed and fully described. Langshans has since undertaken a new series of experiments in the hope of confirming and con-