

know that not until 1889, when Von Mering and Minkowski in Germany, and de Dominicis in Italy, published the results of their researches did the belief in the existence of a pancreatic diabetes begin to become generalised, but even at the present moment the fact that two cases, closely resembling each other clinically, may post-mortem show, the one, extensive pancreatic disturbance, the other, an apparently healthy pancreas, creates great confusion.

What then are the facts gathered so far as to the relative frequency and the nature of the lesions of the pancreas which may be associated with diabetes?

We have at least three careful studies upon this subject, those of Hausemann (2), Williamson (3) and Dieckhoff (4), and all demonstrate that three conditions may be distinguished (1) extensive pancreatic disease with associated diabetes; (2) extensive pancreatic disease without diabetes; (3) diabetes unassociated with recognisable pancreatic disease. Hansemann from a careful investigation of the records of the Pathological Institute and the Augusta Hospital at Berlin, found that the first condition (of pancreatic disease with diabetes) is more common than the two others combined. It may be that in Berlin the consumption of much beer predisposes to the pancreatic form of the disease, it may be that the material upon which Hansemann worked was imperfect to this extent, that full care was not taken to distinguish between extensive and extreme destruction of the pancreatic tissue, but it will, I think, be the experience here, as it was that of Williamson in England, and Dieckhoff in Rostock, that advanced pancreatic disease, associated and unassociated with diabetes, are to be encountered the one but little more frequently than the other.

This much, however, stands out very prominently, that where in diabetes the pancreas is found affected, the morbid process within the gland is some one or other form of atrophy and destruction of the gland substance. Most commonly it is a form of periacinous fibrosis, originating it would seem secondarily to arterio-sclerosis, in which with thickening of the arterial walls there is malnutrition of the gland cells, atrophy and, what I have elsewhere termed, replacement fibrosis. Other forms of atrophy and fibrosis have not infrequently been observed—simple atrophy, congenital syphilitic fibrosis, obstruction of the ducts with calculi, dilatation of the ducts and atrophy of the gland tissue, scirrhus cancer of the pancreas, and I have found recorded five cases of necrosis, or hæmorrhagic necrosis (two by Fitz and a third, a case under Drs. Bell and Finley, in my own experience at the Montreal General Hospital).

There can, therefore, be no question that the pancreatic lesions