

ing acini often occur, many cells of which have lost their form and have become simply a mass of pigment granules.

The epithelial cells are irregularly often heavily pigmented, and there is extensive necrosis. Examined under an immersion lens of high magnification, where the fine granules, both in the hepatic and pancreatic cells, are relatively scattered and separate, they are seen to be arranged with remarkable persistence in pairs, and thus closely resemble, if they are not identical with, the diplococcoid forms in the liver and other cells to which Professor Adami has called attention.

*Retroperitoneal lymph glands.*—The only lymph glands examined were from the neighbourhood of the pancreas; the fibrous septa were distinctly widened, but did not seem to penetrate into the lymphoid masses lying in their meshes. Part of the gland was comparatively free from pigment; here and there a few round particles lay between the cells, and sometimes a row of fine granules surrounded the nucleus as though enclosed within the cell protoplasm. A large area of the gland was, on the other hand, completely transformed into coarse granules of golden-brown pigment, between which lay isolated lymphoid cells. In these areas there seemed to be no increase of connective tissue. At points where the pigmentation was heaviest there were areas of necrosis—hyaline regions staining with hæmatoxylin-eosin, a pale pinkish violet, in which lay a curious network of highly refractive homogeneous fibrils. This network was of a pale yellow colour, in unstained specimens, and did not stain with hæmatoxylin and eosin. With Van Gieson the fibrils took a dark greyish, almost black, colour, they gave a deep Prussian blue with Perl's test, the blue colour developing here much more rapidly than in the other pigmented areas of the section. The iron reaction appeared after ten minutes in a 1 per cent. solution of cold hydrochloric acid.

These curious fibrils resemble nothing ever observed by us before; their general appearance strongly suggests a capillary network which has undergone hyaline degeneration, and has taken up iron pigment in a soluble form.

*Spleen.*—The trabeculæ do not appear to be increased. By Van Gieson's method a limited fibrosis is apparent near the surface of the organ, fine threads of fibrous tissue traversing the parenchyma. Pigmentation is scanty, some very fine granules being scattered through the tissue. These do not react to Perl's test, although the whole section takes on a pale diffuse blue colour. The only true Prussian blue reaction that occurs is in the adventitia of the large vessels in which the coarsely granular form of pigment lies.

*Heart muscle.*—Van Gieson's method shows a very early fibrosis, fine strands of connective tissue running here and there between the fibres. There is limited pigmentation, golden-brown, finely granular pigment being arranged around the poles of nuclei as in brown atrophy. The reaction to Perl's test is irregular; in some cells the granules react freely, in others the colour remains unchanged; the whole section takes on a diffuse blue tinge.

*Suprarenals.*—There was extensive necrosis of the medulla (probably post-mortem) and a brownish pigmentation, which gave no iron reaction. There were scattered areas of small-celled infiltration in the medulla and dense iron pigmentation of the epithelium of some of the cortical acini.

*Kidney.*—Some congestion and a mixed nephritis exist. There is no fibrosis and no iron pigmentation, except in the epithelium of a few isolated tubules in the cortex.

*Lungs.*—With the exception of a few leucocytes lying free in the alveoli, which took a diffuse blue tinge, no iron was apparent.

*Skin.*—In spite of the peculiar bluish-grey, slaty tinge described, there was surprisingly little microscopical evidence of pigment. All that could be observed were a few golden-brown granules in some large, irregularly shaped cells, situated in the connective tissues of the dermis, a little below the Malpighian layer; there was no reaction to Perl's test. The discrepancy