

These results showed that the cells both from the normal and jaundiced patients retained their respective characteristic fragilities without reference to the source of the plasma.

Using the technique described in this paper, a detailed study of the index of hemolysis in both normal and diseased individuals will be presented elsewhere.

6104

An Intravascular Lesion in Poliomyelitis Induced by Feeding in *Macacus Cynomolgus*.

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Wickman^{1, 2} dwelt at some length upon the lesions of the central nervous system associated with acute poliomyelitis, and as a result of the accuracy of his original observations his descriptions of the changes encountered have been little altered in subsequent years. Wickman noted that the vascular lesions of acute poliomyelitis were more marked in the veins than in the arteries, and that the frequently encountered round cell infiltration was situated in the lymph channels of the vessel wall. It was also recognized, however, that the lymphocytic infiltration was often of sufficient intensity to extend beyond the adventitial limits of the vessels into the surrounding tissues. Flexner and Amoss³ pointed out that in cases of acute poliomyelitis induced by intravenous administration of virus the vascular lesions were more extensive than in instances of infection by other routes.

The lesion described below was encountered in the meningeal vessels of a *Macacus cynomolgus* which developed acute poliomyelitis after having been fed with virus-infected milk. The material used was a 10% milk suspension of recently glycerinated brain and spinal cord from monkeys which had succumbed to typical poliomyelitis. Six daily feedings of 30 cc. were administered by mouth with the aid of a medicine dropper, the milk being fed slowly so that the monkey could swallow it easily.

¹ Wickman, I., *Studien über Poliomyelitis acuta*. Karger, Berlin, 1905.

² Wickman, I., *Die akute Poliomyelitis bzw. Heine-Medinische Krankheit*. Springer, Berlin, 1911.

³ Flexner, S., and Amoss, H. L., *J. Exp. Med.*, 1914, **20**, 249.

Symptoms were first apparent 11 days after the last feeding, at which time the animal moved about slowly and showed obvious weakness of the left leg. During the course of the illness the left leg became completely paralyzed and the right leg became quite weak. On post mortem examination a moderate congestion of the central nervous system was observed. Microscopically, lesions typical of poliomyelitis were found in the pons, in the medulla, and in the lumbar segments of the spinal cord. Changes in the dorsal and cervical segments were minimal.

Of particular interest was the peculiar inflammatory reaction involving the meningeal veins at the various levels of the central nervous system exhibiting parenchymal lesions. The vein walls were infiltrated by small and large lymphocytes. These were not uniformly distributed about the circumference of the affected vein, as is usually the case, but were collected in a nodular or elliptical mass along only one portion of the vessel wall. The infiltrating cells lay not only in the vascular lymphatics, but extended into the adventitia and also invaded the inner portions of the vein wall, lymphocytes lying in some instances just beneath the endothelium of the vein involved.

This peculiarly focal reaction was most sharply defined in the walls of the anterior and posterior spinal veins at the lumbar level of the spinal cord. Here the intensity was such that an actual convexity was produced upon the inner surface of the vein. In such an area large numbers of lymphocytes were so massed together with the pale swollen endothelial cells of the lymphatic channels that structural detail was concealed. The endothelial cells of the intima of the affected veins were swollen in contrast to those of the arterial intima. The arteries showed surprisingly little change.

The interest of the lesion lies in its strict limitation to the veins of the meninges, in its sharply defined elliptical arrangement, in its peculiar focal intensity and in the fact that it was intravascular in contrast to the more frequently encountered perivascular response.