(1.9×M.L.D.), 150 mg./kg. (2.4×M.L.D.), and 200 mg./kg. (3.1×M.L.D.). The antidotal ratio of coriamyrtin and nembutal for the total number of survivals was 1:20.55.

In the pernoston series 70% recovered at a dosage slightly above the M.L.D. (1.2) and 60% recovered at a dosage 2.1 times the M.L.D. This dosage level represented the upper limit of effective therapeusis. The results in this series corroborate our previous observations[3] of the wide range of therapeutability of pernoston as compared with the non-halogenated barbiturates. The antidotal ratio of coriamyrtin and pernoston for the total number of survivals was 1:34.6.

The action of coriamyrtin is as quick as that of picrotoxin but is of much shorter duration. This necessitates constant surveillance of the severely poisoned animal and the prompt administration at rather frequent intervals of small fractional doses of coriamyrtin as soon as indicated. Further detailed studies are in progress on coriamyrtin and tutin.

We wish to express appreciation to the Eli Lilly Research Laboratories for supplying amytal and coriamyrtin, the Abbott Laboratories for nembutal and the Riedel de Haen Company for pernoston used in this study.

8712 P

Poliomyelitis Histology in Rhesus Monkeys: Virus Introduced Via Gastrointestinal Tract.*

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When poliomyelitic virus was injected intracerebrally into *M. rhesus* monkeys no histologic evidence of its presence was observed in sections of tissues from the central nervous system until at least 3 days (usually 4 days) had elapsed following the injection. This corresponded to the time when symptoms of the disease began to appear.[1] When virus was injected directly into the median nerves

[3] Maloney, A. H., *J. Pharm. and Exp. Therap.*, 1933, **49**, 133.

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[1] Fairbrother, R. W., and Hurst, E. W., *J. Path. and Bact.*, 1930, **33**, 17.

of 6 animals with or without irritation of the nerves, no histologic evidence of its presence was found on the proximal side a scant inch beyond the injection. When Fairbrother and Hurst[1] injected virus into the sciatic nerve, there was a local reaction, but the nerves were negative a short distance beyond the injection. This observation was confirmed by us in 3 animals. Thus, there is an interval elapsing between the injection of virus and the onset of symptoms of the disease. It is clear that the approximate interval after injection before symptoms appear and the length of time before there is histologic evidence of the disease probably coincide.

During the summer of 1935 44 animals were injected subserosally in the manner previously described.[2] Sections of the central nervous system were cut, stained in various ways and studied. It was found that, after the introduction of the virus by way of the gastrointestinal tract, histopathologic evidence of disease was regularly found in the lumbar area of the cord within 24 hours after injection. The first reaction seen was destruction of neurons in the cord. Marked increase in microglial elements (Wickman's Polyblasts) followed so soon after this reaction that it seemed to be almost coincidental. In from 3 to 4 days increase and dilatation of capillaries began. In many animals, neuronophagic plaques surrounded practically all of the cells in a field, and, in others, this change was accompanied by the usual perivascular cuffing and round cell infiltration, which never occurred prior to the 5th day after injection.

8713 P

Significance of Carbohydrate Metabolism and Local Acidosis in Inflammation.*

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Earlier studies by one of the writers have indicated that the cytological sequence in inflammation, characterized by primary

[2] Toomey, John A., PROC. SOC. EXP. BIOL. AND MED., 1934, **31**, 1015.

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