

Part III.—Epitome of Current Literature.*

1. Anatomy and Physiology.

The Neuromuscular Junction. II. The Universal Antagonism between Calcium and Curarizing Agencies. (*Chinese Journ. Physiol.*, vol. x, pp. 513–28, 1936 [in English].) Feng, T. P.

Ca antagonizes the curarizing action of such diverse agencies as the following: curare, eserine, veratrine, nicotine, atropine, ergotoxine, strychnine, pilocarpine and procaine, fatigue, acid, Sr, Mg, Ba and extreme temperatures. This universal antagonism between Ca and curarizing agencies is incompatible with Lapicque's chronological theory of curarization. The cause of curarization appears to be an electrical disturbance involving a loss of Ca from the neuromuscular junction.

E. D. WALTER (Chem. Abstr.).

Studies on the Neuromuscular Junction. III. The Contracture in Eserinized Muscle is Produced by Nerve Stimulation. (*Chinese Journ. Physiol.*, vol. ii, pp. 51–70, 1937.) Feng, T. P., and Shen, S. C.

A form of contracture in eserinized muscle is described, which has the following characteristics: it occurs only with tetanic stimulation of the motor nerve-fibres or their endings above a certain minimum frequency; it is localized to the innervated portion of the muscle, i.e., to the neighbourhood of the motor nerve-endings; it is abolished by atropine, novocaine and curare, i.e., by antagonists of acetylcholine. The effects of temperature and cations on the contracture were studied. It is shown that the most probable explanation available is that the contracture is due to acetylcholine liberated and accumulated at the motor nerve-endings and their vicinity, and so it is concluded that the eserine contracture furnishes strong evidence in favour of the theory of chemical mediation in the transmission of impulses from motor nerve to skeletal muscle.

L. A. MAYNARD (Chem. Abstr.).

The Liberation from a Stimulated Nerve of a Substance which Sensitizes the Muscle of the Leech to Acetylcholine. (*Boll. Soc. Ital. Biol. Sper.*, vol. ii, pp. 741–2, 1936.) Bergami, G., Cantoni, G., and Gualtierotti, T.

An electrically stimulated nerve immersed in Ringer solution liberates a substance which sensitizes the muscles of the leech to acetylcholine.

PETER MASUCCI (Chem. Abstr.).

Effects on the Knee-jerk of Stimulation of the Central End of the Vagus, and of Various Changes in the Circulation and Respiration. (*Journ. Physiol.*, vol. lxxxviii, pp. 459–75, 1937.) Schweitzer, A., and Wright, Samson.

The effects on the knee-jerk of stimulation of the central end of the vagus, lowering of blood-pressure, acute complete anæmia of the central nervous system, anoxia, alterations in the CO₂ pressure in the blood and the intravenous injection of various doses of histamine and cyanide were studied in the cat under chloralose anæsthesia.

E. D. WALTER (Chem. Abstr.).

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