

The Effect of Non-sedative Drugs and other Measures in Migraine, with Especial Reference to Ergotamine Tartrate. (Amer. Journ. Med. Sci., vol. clxxxviii, p. 253, Aug., 1934.) Brock, S., O'Sullivan, M., and Young, D.

The writers, after emphasizing that stimulation of the proximal end of one vagus nerve induces bilateral cerebral vaso-dilatation—a parasympathetic action—whereas stimulation of the cervical sympathetic causes ipsilateral vaso-constriction of pial vessels, point out that vaso-spasm is probably a secondary effect of, and not a primary factor in, migraine. They found that follutein, histamine and large doses of amniotin were sometimes successful in inducing headache. In the relief of the headache the most striking benefit was obtained by the hypodermic injection of ergotamine tartrate—a drug which is believed to produce vaso-dilatation by paralyzing the sympathetic innervation. Amyl nitrite failed more often than it brought relief. Adrenaline also was often of no benefit. The use of the ovarian follicular hormone which is known to be lacking in women with migraine did not give the expected results. Intravenous calcium was more or less ineffective.

G. W. T. H. FLEMING.

The Behaviour of Post-encephalitic Parkinsonian Tremor under the Influence of Various Drugs [Il comportamento del tremore del parkinsonismo postencefalitico sotto l'influenza di sostanze ad azione farmacodinamica]. (Riv. di Neur., vol. vi, p. 365, Aug., 1933.) Ferrio, C.

The author found that atropine, belladonna and scopolamine (all of which paralyse the parasympathetic) had an inconstant effect. Ergotamine, which inhibits the sympathetic, had an inconstant inhibitory effect on the tremor. Pilocarpine and adrenalin both increased the amplitude of the tremor; the frequency of the tremor remained unaffected. The author considers that his results at least do not contradict the thesis of the participation of the vegetative nervous system in the innervation of striated muscle.

G. W. T. H. FLEMING.

Typhoid Vaccine in the Treatment of Chorea. (Amer. Journ. Med. Sci., vol. clxxxvi, p. 390, Sept., 1933.) Capper, A., and Bauer, E. L.

The authors treated 23 cases of chorea, 9 of which were chronic, with typhoid-paratyphoid vaccine; 19 became symptom-free. Of the 9 chronic cases, 1 showed a persistent talkativeness and 1 a persistent blinking of the eyes, but all other symptoms had disappeared. A re-examination of 11 cases three to fifteen months subsequent to discharge showed at least 7 to be entirely well.

G. W. T. H. FLEMING.

The Pharmacological Action of Ten Amines Related to Ephedrine and Tryptamine. (Journ. Amer. Pharm. Assoc., vol. xxii, p. 813, 1933.) Chen, K. K., and Ling Chen, A.

Ten amines, four of which were ephedrine derivatives, and the others containing an indole ring, were tested for pressor action on pithed cats, effect on rabbit pupil, effect on rabbit intestine and on isolated guinea-pig uterus. If the blood-pressure is taken as the criterion, the introduction of a methoxy radical at the p position in the norephedrine molecule results in a reduction of activity. The replacement of two OH groups for H at the 3-4-positions in the benzene ring greatly increases the intensity, but abolishes the prolongation of the action. 3-4-dihydroxynorephedrine has one-fourth and 3-4-dihydroxyephedrine one-fortieth the activity of adrenalin. Repeated intravenous injections of both compounds elicited the same responses as those produced by the first injection. They dilate the pupil and inhibit intestinal movement. Tryptamine is more powerful than methyl- or dimethyl-tryptamine, but decidedly less active than trimethyltryptamine ammonium iodide, which has one twenty-first the activity of adrenaline as far as blood-pressure is concerned. p-Methyl- and p-methoxynorephedrine and all the tryptamines investigated stimulate isolated rabbit intestines and guinea-pig uteri. They have practically no action on rabbit pupils, except that p-methylnorephedrine dilates them slightly. Hypaphorine does not produce effects similar

to those of the hyptamines. Physiologically cino-bufolenine, which has one-tenth of the pressor action of adrenaline, is more like a derivative of tryptamine than of hypaphorine. L. F. WISE (Chem. Abstr.).

Pharmacological Action in Experimental Hyperglycæmia. (1) *Drugs of the Central Nervous System.* (Boll. Soc. Ital. Biol. Sper., vol. viii, pp. 1746-8, 1933.) Butturini, Luigi.

Rabbits made hyperglycæmic by the intravenous injection of 3-5 gm. glucose reacted like normal rabbits to various doses of strychnine nitrate, sodium santonate, apomorphine hydrochloride and calcium chloride. The duration and severity of cocaine intoxication were markedly less in the hyperglycæmic than in the normal animals. P. MASUCCI (Chem. Abstr.).

7. Pathology and Biochemistry.

Senile Plaques. (Brain, vol. lvii, p. 128, June, 1934.) Bouman, L.

The author points out that practically every brain from a case of senile dementia shows—

- (a) Local spool-shaped swellings ("torpedoes") on the neurites of some of the Purkinjé cells in the cerebellar cortex.
- (b) Some ganglion cells of the cerebral cortex present Alzheimer's type of fibrillary change.
- (c) Some of the neurites in or in the immediate neighbourhood of a senile plaque show knots, buds, eyes, a simple splitting of their neurofibrils or a pathological increase of argyrophilia.

The torpedoes occur in all patients with senile plaques. In most cases they lie in the superficial zone of the granular layer at a relatively small distance from the Purkinjé cells. Both ends of the torpedo gradually pass into a normally impregnated neurite. In a number of these torpedoes small vacuoles can be found. The author considers these swellings to be identical with the local swellings of neurites found by Cajal in injuries of the cerebellar cortex. Torpedoes also occur in amaurotic idiocy, general paralysis, tuberculous meningitis, etc. The early stage of Alzheimer's fibrillary alteration occurs where lipoid is present, usually at a spot between the nucleus and the origin of the neurite, corresponding to the fibrillogenous zone of Held, where the first fibrils develop in the young neuroblast. The eyes, buds, etc., sometimes occur in the superficial layers of a plaque. Plaques are never found in parts where there is much atrophy of the brain, nor are torpedoes, Alzheimer's fibrillary alteration or branching of the neurofibrils. These various changes found in senile dementia closely resemble what the author has described as hyperdifferentiation, which is seen in the early stages of regeneration of nerve-fibres. He would bring them into this category. If this hyperdifferentiation occurs in a ganglion cell, the Alzheimer type of fibrillary alteration results; if it occurs in the course of a neurite a torpedo is formed; if it occurs in dendrites, dendritic swellings develop; if it is the neurites that are involved in a senile plaque, the eyes, buds, etc., result; and if it occurs in the non-differentiated protoplasmatic ground reticulum of the nervous system, a senile plaque results. The formation of plaques is probably a reaction to trauma of the tissues, a disproportionate attempt of the nervous tissue at regeneration after a primary lesion.

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Histopathological Observations in a Case of Dementia Præcox with Waxy Rigidity and Cataleptic Attitudes [Algunas observaciones histopatológicas en una psicosis infantil con rigidez cêrea y actitudes catalépticas]. (La Semana Méd., vol. xli, p. 1897, July 21, 1934.) Dimitri, V., and Victoria, M.

A Jewish boy, æt. 13, of good intelligence, began to exhibit alterations of character and mood, becoming depressed and weeping without cause. Fifteen