(in which R = Me or Et, R′ = Am, l-methylbutyl, iso-Am, iso-Bu, *sec*-Bu or l-methylpentyl, and R″ = Me, Et or allyl) were studied by injecting solutions of the sodium salt of the compounds intraperitoneally into albino rats weighing 75–125 grm. (av. 97 grm.). Substitution of an Et or Me group in place of the H on the N distinctly shortens the duration of action. With an Et in place of Me on the N, the anæsthetic and the lethal dose in mgrm. per kgrm. was more than twice those of the Me group on the N; but no change in the duration of action was observed. Duration of action is therefore not dependent on the quantity of drug administered. A. PAPINEAU-COUTURE (Chem. Abstr.).

Synergism and Antagonism of Drugs. II. The Action of Physostigmine on Autonomic Ganglia. (*Journ. Pharmacol., vol. lviii, pp.* 105–10, 1936.) *Koppanyi, T., Dille, J. M., and Linegar, C. R.*

Physostigmine abolishes the vagal (parasympathetic) paralysis of nicotine and curare and the sympathetic paralysis of nicotine. The ganglionic paralytic effect of nicotine and curare in the autonomic system is opposed by physostigmine but not by pilocarpine. Atropine prevents the ganglionic effect of physostigmine. These actions of physostigmine are interpreted as being due to a stimulation of the release of acetylcholine, previously interfered with by nicotine or curare.
T. H. RIDER (Chem. Abstr.).

Atropine in the Cure of Postencephalitic Parkinsonism. (*Argomenti Farmacoterap., vol. iv, pp.* 11–14, 1936.) *Budinis, I.*

A report of the administration of gradually rising doses of atropine sulphate in 50% solution according to the method of Römer in 9 cases of Parkinsonism with favourable results, which are discussed. C. R. ADDINALL (Chem. Abstr.).

The Respiratory Centre and Narcosis. (*Arch. Intern. Pharmacodynamie, vol. liv, pp.* 219–46, 1936.) *Mansfeld, G., and Tyukody, Fr. v.*

Four active respiratory centres and one inhibitory centre are concerned in respiration. The cerebellar dog breathes normally. Removal of the cerebellum causes cessation of respiration. If the upper region of the medulla is then removed respiration begins again. This region thus contains an inhibitory centre, and after its removal the respiration is no longer affected by oxygen or carbon dioxide. The pons also contains a respiratory centre whose function is similar to that in the cerebellum, but reflexes from the carotid sinus act only on the cerebellar centre. The lower region of the medulla contains two respiratory centres. Phenobarbital has a different affinity for the different centres. If only one centre is regulating respiration the all-or-none law holds for the action of this drug.
M. L. C. BERNHEIM (Chem. Abstr.).

The Brain Content of Anæsthetics in Experimental States of Hypo- and Hypersensibility. (*Anesthésie et Analgésie, vol. i, pp.* 229–42, 1935.) *Tiffeneau, M.*

Acidosis favours hypnosis. In fish, the rapidity of narcosis is greater in an acid medium. In rabbits chloroform is more rapidly absorbed into blood and brain by animals in a state of acidosis. In dogs and rats the brain content of alcohol is greater in normal animals than in those which have acidosis. In mice the relative amounts of anæsthetic C_2H_5Br fixed by the blood and brain vary with the rate of production of anæsthesia. The right hemisphere apparently contains more C_2H_5Br than the left, and the posterior portion of the brain contains more than the anterior. T. H. RIDER (Chem. Abstr.).

Barbiturates. XVII. The Effect of Prolonged Chloroform Anæsthesia on the Duration of Action of Barbiturates. (*Journ. Pharmacol., vol. lviii, pp.* 119–27, 1936.) *Koppanyi, T., Dille, J. M., and Linegar, C. R.*

Chloroform anæsthesia (2 hours) of cats and rabbits prolongs and deepens the anæsthesia from pentobarbital and barbital 24 hours later. Conclusion: The

chloroform, while completely eliminated, has injured the cells of the central nervous system, making them more susceptible to barbiturates.

XVIII: A Peripheral Action of Barbiturates. (*Ibid., pp.* 128–34.) *Linegar, C. R., Dille, J. M., and Koppanyi, T.*

Amytal, pernocton, moderate doses of pentobarbital and large doses of barbital may paralyse the peripheral vagus but not the central vagus, whereas phenobarbital has no paralytic effect. Pilocarpine and acetylcholine still slow the heart. Vagus excitability is restored by physostigmine. Conclusion: The barbiturate action is in the peripheral ganglionic cells of the heart.

XIX: The Barbiturate-picrotoxin Antagonism. (*Ibid., pp.* 199–228.) *Koppanyi, T., Linegar, C. R., and Dille, J. M.*

A review and extension of data. Metrazole is of value in mild cases of barbiturate poisoning, picrotoxin also being required in the treatment of more severe poisoning. T. H. RIDER (Chem. Abstr.).

6. Pathology and Biochemistry.

Effect of Encephalography on Blood-sugar Level of Children. (*Amer. Journ. Med. Sci., vol. cxciii, p.* 259, *Feb.*, 1937.) *Bradley, C.*

The writer found that encephalography as usually carried out in children consistently resulted in hyperglycæmia with blood-sugar levels often in the vicinity of 200 mgrm.%. The blood sugar rises rapidly during spinal fluid replacement, reaches its peak within an hour and falls over a period of several hours. This hyperglycæmia bears no evident relationship to the anæsthetic used, the clinical condition or age of the child studied, the amount of fluid withdrawn or air injected.
G. W. T. H. FLEMING.

Vital Staining of the Central Nervous System (*Sulla colerazione vitale del sistema nervoso*). (*Riv. di Neur., vol. ix, p.* 253, *Oct.*, 1936.) *Giordano, F.*

After injecting during life mercuric chloride and cantharidin, the author studied their effects upon the choroid plexus in rabbits. He found, as others before him, that cantharidin selects the connective tissue of the villi, while corrosive sublimate attacks the epithelium. He describes and discusses the lesions found.
H. W. EDDISON.

Creatinuria in Post-encephalitic Parkinsonism [*Sul ricambio dei corpi creatinici nel parkinsonismo post-encefalitico*]. (*Riv. Sper. di Freniat., vol. lx, p.* 388, *Sept.*, 1936.) *Porta, V., and Pelliecioli, V. G.*

The authors state that they have frequently found creatinuria in post-encephalitic cases. They consider that treatment with atropine reduces the amount of both creatine and creatinine in proportion to the degree of improvement obtained.
H. W. EDDISON.

The Iso-electric Point of Protein in the Cerebro-spinal Fluid [*Il punto isoelettrico della proteina del liquido cefalo-rachidiano*]. (*Riv. di Neur., vol. ix, p.* 368, *Oct.*, 1936.) *Tornu, A.*

The iso-electric point of the total protein offers difficulties owing to the different value of each individual protein and variations in their proportion.

The highest degrees of precipitation are seen in general paralysis, acute encephalitis and tubercular meningitis. In G.P.I. the zone of precipitation reaches its maximum at pH 5·1–5·4. In meningitis it tends towards the acid side with maximum precipitation round about pH 4 7. In normal and in non-inflammatory cases the zone of precipitation is narrowly limited to about 4·7. The readings are not constant in tabes. H. W. EDDISON.