

tion of *Metallic and Plastic Coated Wires Used in Electroencephalography*, *Proc. Staff Meet., Mayo Clinic* 32: 14 (Jan.) 1957.)

ELECTROENCEPHALOGRAM

Quantitative determination of depth of narcosis is of clinical and laboratory value. In cats under Nembutal the authors used the electroencephalogram, respiration, flexion reflex, and analysis of blood for drug concentration as standards of measure. Electroencephalogram proved the best indicator of depth, using brain wave counts and energy output integrated by Bickford's methods. Influence of Nembutal was greatly affected by very small changes in body temperature. Flexion reflex and respiratory rate were insensitive measures of narcosis. A procedure for maintaining desired level of narcosis is proposed. (*Forbes, Alexander, and others: Measurement of Depth of Barbiturate Narcosis, J. Electroencephalog. & Clin. Neurophysiol.* 8: 541 (Nov.) 1956.)

STROKE Using encephalography as a measure of cerebral disturbance, the advent of arterial hypotension in monkeys was shown to result in much more marked abnormalities in the hemisphere whose blood supply had been compromised than in the hemisphere on the normal side. These exaggerated changes were quickly and completely abolished by restoring the blood pressure to normal levels. Cases suggesting the clinical occurrence of cerebral vascular insufficiency are presented and the clinical aspects of this condition are stressed. The possible role of sympathetic block is emphasized in further discussion by Geza de Takats. (*Corday, E., Rothenberg, S., and Weiner, S. M.: Cerebral Vascular Insufficiency, A. M. A. Arch. Int. Med.* 98: 683 (Dec.) 1956.)

NERVE METABOLISM Studies were made of oxygen consumption and pyruvate utilization when isolated rat sciatic nerve was subjected to partial pressures of nitrous oxide, xenon, or cyclopropane or concentrations of phenobarbital or chlortone sufficient to produce conduction blockade. Blockade concentrations or partial pressures inhibited the resting respiration of nerve 50 to 80 per cent. Pyruvate utiliza-

tion by nerve was not always diminished by anesthetics in a manner parallel to the alteration in the resting respiration. An equivalent depression of electrical activity produced by each substance was not accompanied by the same pattern of alteration in nerve metabolism. (*Carpenter, F. G.: Alteration in Mammalian Nerve Metabolism by Soluble and Gaseous Anesthetics, Am. J. of Physiol.* 187: 573 (Dec.) 1956.)

CITRATE HEART FAILURE

Exsanguinated dogs survived if heparin was the anticoagulant used in their replaced blood, but failed to survive if citrate was the anticoagulant used. In low concentrations, sodium citrate causes constriction of pulmonary vessels, overloading of right ventricle and rise in peripheral venous pressure. Higher concentrations of citrate also cause weakening of the myocardium. These adverse effects of transfused citrated blood can be prevented by the simultaneous administration of calcium gluconate and procaine. The peripheral venous pressure is a good indicator of the safe rate of transfusion and the amount of calcium necessary. (*Firt, P., and Hejhal, L.: Sodium Citrate; One of Main Causes of Cardiac Overloading and Failure in Rapid Blood Transfusion, Rev. Czech. Med.* 1: 20, 1955.) [This is not a recent publication, but one which might easily have been overlooked.—Editor.]

HYPOCALCEMIC EKG CHANGES

Ethylenediamine tetraacetic acid induces a marked hypocalcemia when given intravenously. An average reduction of serum calcium of 59 per cent was seen in 4 rabbits. A prolonged Q-T interval, a lengthened ST segment, abnormal T waves and electrical alternans of the T wave were seen. (*Kleinfeld, M., and Gross, M.: Electrocardiographic Manifestations of Hypocalcemia Produced with Ethylenediamine Tetraacetic Acid, Am. J. Physiol.* 187: 479 (Dec.) 1956.)

HYPOTHERMIA Hypothermia was induced in dogs by circulating cold water through an intragastric rubber balloon. The body temperature of 14 dogs was satisfactorily lowered by this method. (*Khalil, H. H.: Hypothermia by Internal Cooling, Lancet* 1: 185 (Jan. 26) 1957.)