

With the exception of Antistine, all the antihistamines had an anesthetic potency greater than procaine but less than dibucaine or tetracaine. A high degree of relative selectivity of antihistamines to produce cutaneous anesthesia at lower concentrations than they produced corneal anesthesia was in contrast with the narrow selectivity of anesthetics, with the exception of procaine which in this sense acts like the antihistamines. (Naranjo, P., and Naranjo, E. B.: *Local Anesthetic Activity of Some Antihistamines and Its Relationship with Antihistaminic and Anticholinergic Activities*, *Arch. internat. pharmacodyn.* 113: 311 (Jan.) 1958.)

Pertinent information is the unpublished report by Dr. W. P. Kleitsch, Veterans Hospital, Omaha, Neb., concerning the use of tripeleannamine (Pyribenzamine) as a topical anesthetic agent. Over a four year period Doctor Kleitsch used a solution of 2 per cent tripeleannamine and 0.5 per cent tetracaine to produce satisfactory topical anesthesia for 455 peroral endoscopic procedures. Five cc. of the mixture on sponges to the pyriform sinuses and 5 cc. instilled into the trachea produced more satisfactory anesthesia than that following 1 per cent tetracaine and produced less toxicity than that resulting from the use of either 2 per cent tetracaine or 10 per cent cocaine.—Editor.

NOREPINEPHRINE The effect of bleeding and l-norepinephrine on the oxygen tension in the myocardium was studied. In 19 dogs tension of oxygen decreased as the bleeding progressed. The average drop was 39 per cent of the control value. When the blood pressure was restored to normal with l-norepinephrine, the oxygen tension returned to normal or above. When the infusion was stopped, the blood pressure and oxygen tension decreased. Transfusion of blood also restored the blood pressure and oxygen tension. Evidence is submitted that effective alteration of survival rates can be accomplished with l-norepinephrine if the infusion is begun within 5 minutes after hypotension develops. This suggests that ischemia of vital organs cannot be prolonged if the animal is to survive. (Simone, F., and others: *Effect of l-Norepinephrine upon Myocardial Oxygen Tension and Survival*

in Acute Hemorrhagic Hypotension, *Surgery* 44: 168 (July) 1958.)

ADRENOSEM Because of hemostatic properties attributed to this drug, it was evaluated during pulmonary surgery using the double blind technique. Rumpel-Leede Tests, bleeding times and evaluation of bleeding and oozing indicate that adreno-sem has no effect in reducing small vessel bleeding in pulmonary surgery. Casual clinical observation cannot be regarded as a reliable method of drug evaluation. (Marcus, A. J., and Spaet, T. H.: *Ineffectiveness of Adrenosem in Pulmonary Surgery*, *J. of Thoracic Surg.* 35: 821 (June) 1958.)

ANALEPTICS Megimide appears to increase tolerance to alcohol. Eyelid flickering, muscle twitches, anxiety, dizziness and feelings of dissociation were reported in two normal volunteers. Focal electroencephalographic discharges occurred but not from a local brain area as in epileptics. (Margerison, J. H.: *Effect of Bemegride (Megimide) on Normal People*, *Electroencephalog. & Clin. Neurophysiol.* 18: 541 (Aug.) 1958.)

BRONCHOSPASM The effect of histamine on the human bronchiole was to produce edema with narrowing of the lumen. Adrenalin caused widening of the lumen. In neither instance was there a change in bronchiole size. Nerves and drugs have little effect on the bronchiolar musculature whose function is the maintenance of tone. Probably bronchiolar caliber is determined by the pleural pressure. Clinical bronchospasm bears little relation to intrinsic bronchial musculature and is probably due to edema or mechanical block of the lumina. (Gillfillan, R. R.: *Clinical Studies on Bronchospasm*, *J. Thoracic Surg.* 36: 63 (July) 1958.)

DRUG SYNERGISM A clinical double blind study using morphine and papaverine alternately showed that morphine was a more effective analgesic following papaverine than when preceding it. The mode of action of this synergism was discussed together with errors in results of other clinical trials due to possible drug interaction. (Macris, S. G., and others: *Papa-*

verine and Morphine Synergism in Pain Relief in Man, Science, 128: 84 (July 11) 1958.)

PLASMA PROTEINS AND CURARE

The levels of *d*-tubocurarine chloride and its distribution in plasma was studied in 7 normal and 2 refractory human subjects. In the two refractory patients, considerably higher plasma levels of *d*-tubocurarine chloride were found than in those of normal controls. This finding suggests that *d*-tubocurarine is found in excessive quantities in the plasma of refractory patients, and is unable to diffuse out of the vascular system in effective concentration to exert its action at the neuromuscular junction. (Aladjemoff, L., Dikstein, S., and Shafrir, E.: *Binding of d-Tubocurarine Chloride to Plasma Proteins, J. Pharmacol. & Exper. Therap. 123: 43 (May) 1958.*)

MEPHENTERMINE The sympathomimetic amine, mephentermine sulphate (Wyamine) increases ventricular function in the isolated dog heart and in the dog with an open chest with a complete circulation. It has little effect on total peripheral vascular resistance. It increases myocardial oxygen consumption and decreases efficiency in the nondilated heart; but, the reverse was found when filling pressure was high in the heart. This is in agreement with LaPlace's Law concerning the relationship between the total tension developed by the myocardium and its oxygen utilization. (Welch, G. H., and others: *Effect of Mephentermine Sulphate on Myocardial Consumption, Myocardial Efficiency and Peripheral Vascular Resistance, Am. J. Med. 24: 871 (June) 1958.*)

VASOCONSTRICTOR DRUGS

A study was conducted in dogs of the effects of epinephrine, *l*-norepinephrine, methoxamine and mephentermine on the excitability, refractory period, rhythmic abnormalities, conduction times and action potential of the heart. Methoxamine proved to be depressant in that it prolonged the action potential and the absolute refractory period, while raising the threshold to stimulation and slowing A-V conduction. The other drugs induced ectopic pacemaker action, abnormal spontaneous beats, and multiple responses to test stim-

uli. All drugs exhibited some degree of tachyphylaxis. (Gilbert, J. L., and others: *Effects of Vasoconstrictor Agents on Cardiac Irritability, J. Pharmacol. & Exper. Therap. 123: 9 (May) 1958.*)

POLYPHARMACY

Methonium compounds, steroids and tranquilizers are only a few of the drugs introduced in the last few years which influence the response of patients to anesthesia. Side actions cannot be predicted by pharmacologists but become known only by clinical use over the years. (Dundee, J. W.: *Iatrogenic Disease and Anesthesia, Brit. M. J. 1: 1433 (June 21) 1958.*)

VITAMIN ANESTHESIA

SCTZ, a derivative of the thiazole fraction of vitamin B₁, is being introduced in France as a sedative and hypnotic. (Laborit, H., and others: *SCTZ, A Depression of the Cerebral Cortex, J. Internat. Coll. Surgeons 29: 573 (May) 1958.*)

EEG AND ETHER

Encephalogram desynchronization during ether anesthesia is dependent upon connection between cerebral cortex and the reticular formation. A microelectrode technique employed in cats showed continuing cortical activity where a section of cortex was disconnected from the reticular formation, while spontaneous firing of cortical cells still connected was deeply depressed. No over-all increase or decrease in activity of the reticular formation occurred though there was a change in rate of individual cellular discharges in response to peripheral stimulation. Cortical response to cortical stimulation was affected only under deep ether. Chlorpromazine prevented the EEG desynchronization of ether while Dibenamine did not. (Schlag, J., and Brand, H.: *Analysis of Electrophysiological Events in Cerebral Structures During Ether Anesthesia, Electroencephalog. & Clin. Neurophysiol. 10: 305 (May) 1958.*)

EEG A high per cent of children with cyanotic congenital heart disease had abnormal electroencephalograms as compared with those having acyanotic congenital heart disease. The abnormal patterns of the electroencephalograms were similar to changes produced by experimental hy-