

quired. In obstetric anesthesia, use of smaller amounts of Fluothane made negligible the previous high incidence of postpartum hemorrhage and retained placenta. (Dixon, G. D., and Matheson, D. I.: *Fluothane and Other Non-Explosive Halogenated Hydrocarbons in Clinical Anesthesia, Canad. M. A. J.* 79: 365 (Sept. 1) 1958.)

HYPNOTICS AND SEDATIVES Barbiturates will induce anesthesia if used in large doses. The antiepileptic activity is due to elevation of nerve threshold to stimuli. In a significant number of patients barbiturates can control post-operative pain. They can produce interneuronal depression at the spinal cord level, and with larger doses spinal reflexes are markedly depressed. Experimental studies do not show an increase in responsiveness of the laryngeal musculature following the administration of pentobarbital and thiopental. With the exception of thiobarbiturates and hexobarbital uniform tissue distribution of these drugs is the rule. Hexobarbital and thiobarbiturates pass from other tissues and fluids into fat, where higher concentrations are attained. This selective distribution limits their duration of action inasmuch as rates of metabolism in man are not different from the intermediate-acting and long-acting compounds. (Shideman, F. E.: *Hypnotics and Sedatives, Postgrad. Med.* 24: 207 (Sept.) 1958.)

HYPOTHALAMUS Experimentally induced reduction in reactivity of the sympathetic (posterior) portion of hypothalamus is accompanied by diminished hypothalamic-cortical discharges leading to a state of reduced cortical excitation and diminished emotional reactivity. Experiments show that the excitability of the sympathetic portion of hypothalamus can be decreased by (1) increasing discharges from sinoaortic (baro) receptors, chemically with protovaratrine or by increasing blood pressure following injections of arterenol, (2) diminution of proprioceptive

impulses (known to be stimulating) impinging on the hypothalamus by means of Introcotin and succinylcholine in doses not depressing respiration. These mechanisms partially explain the state of relaxation and calming of emotional tone following reduction in state of excitability in the posterior hypothalamus. (Gellhorn, E.: *Physiological Basis of Neuromuscular Relaxation, A. M. A. Arch. Int. Med.* 102: 392 (Sept.) 1958.)

TRACHEAL FENESTRATION A firmly epithelialized mucocutaneous opening into the trachea is provided with lip-like valves that can act like a closing mechanism. It obviates the use of a metal cannula, and the naked opening admits semirigid catheters of sufficiently wide bore to permit effective suction for the removal of bronchial secretions in severe forms of pulmonary disease. The critical factor in the evolution of such disease is not the quantity of secretions but a reduced pulmonary reserve and a failure of the cough mechanism. All patients eventually learn to perform the catheterizations themselves. The flaps of the opening permit little escape of air, and by applying suitable pressure to the flaps the patient can cough and expectorate by mouth normally. (Mayer, C., and others: *Indications and Contraindications for Tracheal Fenestration, J. A. M. A.* 168: 169 (Sept. 13) 1958.)

RESPONSE TO SURGERY The metabolic response to surgery involves all organs of the body. The ways in which the activity of various organs is altered postoperatively have been outlined. The nervous, cardiovascular and endocrine systems act as the principle coordinators of convalescence. The injury itself serves as the initiating mechanism that releases the postoperative metabolic reaction, but the mechanisms that, in time, reverse the metabolic response to surgery are unknown. (Hardy, J. D.: *Metabolic Response to Surgery: Systemic, Adrenal, and Compositional, Ann. New York Acad. Sc.* 73: 401 (Sept.) 1958.)