Preparations Following Administration of Adrenal Hormones, Am. J. Path. 34: 717 (July–Aug.) 1958.)

METHOXAMINE REACTION Since 1952 methoxamine (Vasoxyl) hydrochloride has been successfully employed in the treatment of paroxysmal supraventricular tachycardia when the usual simple measures to stimulate the vagus have failed. The mechanism of action in terminating the tachycardia is believed to be a rise in pressure in the arteries which activate all four afferent pathways concerned with cardiac slowing, viz., the baroceptors in the carotid sinuses and aortic arch. The usual dose of methoxamine for the therapy is 4–20 mg., undiluted, given by slow intravenous injection. An occasional severe reaction, characterized by excruciating headache, projectile vomiting, general nervousness, and rectal and vesical tenesmus occurs during the administration of the drug. Although such a severe reaction can usually be avoided by slowing or momentarily stopping the injection if the patient complains of a premonitory tingling sensation, nevertheless atropine—which is the physiological antagonist—should be available to counteract serious difficulty. (*Durham, J. R.: Severe Reaction to Methoxamine Hydrochloride, J. A. M. A. 167: 1835 (Aug. 9) 1958.*)

PROMAZINE IN LABOR A new method of analgesia and relaxation in labor is afforded by the combination of promazine (Sparine) and meperidine. Promazine 50 mg. is given intravenously to the patient when labor is established (except when delivery is expected within one hour). Subsequently, meperidine 25–50 mg. is administered intravenously and delivery is accomplished under low spinal anesthesia. Promazine is contraindicated in patients with an asthmatic syndrome because (1) marked hypotension develops in such patients given promazine and (2) the nasal and throat congestion produced by the drug may be a reflection of the same processes occurring in the respiratory tract of asthmatic patients. No "clinical hypotension" was encountered when this combination of promazine and spinal anesthesia was employed. Total evaluation of patients showed 57 per cent with excellent and 29 per cent with good results; 85 per cent of the infants were fully alert and 12 per cent were drowsy. (*Wegryn, S. P., and Marks, R. A.: Promazine, Meperidine and Spinal Anesthesia for Labor and Delivery, J. A. M. A. 167: 1918 (Aug. 16) 1958.*)

CHLORPROMAZINE JAUNDICE Small doses (50 mg.) of chlorpromazine may quickly produce a severe jaundice, which may be extremely difficult to differentiate from jaundice of more common origin. When biliary tract disease is known or suspected, extreme caution in the use of this drug is imperative. (*Malabed, L. L., and Carlson, E.: Chlorpromazine Versus Surgical Jaundice, West. J. Surg. 66: 228 (July–Aug.) 1958.*)

PROTAMINE Protamine sulphate in low concentrations affects rate and yield of blood thromboplastin, but has no effect on formed thromboplastin. Higher concentrations inhibit a reaction between blood thromboplastin, prothrombin and calcium. (*Hougie, C.: Anticoagulant Action of Protamine Sulphate, Proc. Soc. Exper. Biol. & Med. 98: 130 (May) 1958.*)

MORPHINE METABOLISM The kinetics of the enzyme actions found in a mouse liver microsome system responsible for demethylation of morphine and similar compounds has been studied. The system responsible for demethylation of narcotic compounds differs from that for demethylation of aminoazo dyes. The similarity between the receptors for narcotic action of morphine and allied compounds and the receptors for the enzymes that demethylate these compounds is not as great as has been proposed. (*Takemori, A. E., and Mannering, G. J.: Metabolic N- and O-Demethylation of Morphine- and Morphinan-Type Analgesics, J. Pharmacol. & Exper. Therap. 123: 171 (July) 1958.*)

FLUOTHANE Cardiovascular complications during Fluothane administration were found to be minimal when low concentrations (0.8 to 1.0 per cent) were not exceeded for maintenance. Supplemental meperidine, thiopentone, and relaxants were used when deeper planes of anesthesia or relaxation were re-

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 Introcostin 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.*)