

proved to be more potent than chlorpromazine, perphenazine, or triflupromazine so far as its antiemetic qualities were concerned. None of the phenothiazines provided protection against emesis produced by digitalis, nicotine, veratrum, or nitrogen mustard. The antiemetic potency of fluphenazine did not appear to be a result of central sedation. (*Laffan, R. J., and others: Antiemetic Action of Fluphenazine (Prolixin): Comparison with Other Phenothiazines, J. Pharmacol. Exp. Ther., 131: 130 (Jan.) 1961.*)

NAUSEA AND VOMITING A study was undertaken to quantitate the relative subjective side actions of oxymorphone (Numorphan) and morphine in patients who were free of pain. Equivalent analgesic doses of morphine (10 mg./70 kg.) and oxymorphone (1.05 mg./70 kg.) were given to two groups of hospitalized women who were awaiting elective surgical operations. Nausea and vomiting were significantly more frequent and severe after oxymorphone than after morphine. At this dose, oxymorphone produced sedation, dizziness and other typical morphine-like effects as frequently as did morphine. The time action curve of oxymorphone was similar to that of morphine when expressed in terms of subjective effects. (*Keats, A. S., and Telford, J.: Studies of Analgesic Drugs; Comparative Subjective Effects of Oxymorphone and Morphine, Clin. Pharmacol. Ther. 1: 703 (Nov.-Dec.) 1960.*)

PHENAZOCINE The neuropharmacological effects of phenazocine (Prinadol) have been compared to morphine in a variety of laboratory animals, including mice, rats, rabbits, dogs, and monkeys. In general, the neuropharmacologic properties of phenazocine were similar to those of morphine. Phenazocine proved to be more potent than morphine, varying from seven to twenty-five times more potent depending upon which of the responses to narcotics was being studied. (*Tedeschi, D. H., Tedeschi, R. E., and Fellows, E. J.: Analgesic and Other Neuropharmacologic Effects of Phenazocine (NIH 7519, Prinadol) Compared with Morphine, J. Pharmacol. Exp. Ther. 130: 431 (Dec.) 1960.*)

PHENAZOCINE Alveolar carbon dioxide-alveolar ventilation curves were studied before and 60 and 180 minutes after intramuscular doses of 2.5 mg. phenazocine hydrobromide and 10 mg. morphine per 70 kg. in 5 subjects. Phenazocine was shown to be a respiratory depressant of approximately the same magnitude as morphine when given in equivalent analgesic doses. Peak action of phenazocine occurred between 30 and 90 minutes after intramuscular administration, and its action was of longer duration than morphine. (*Papadopoulos, C. N., and Keats, A. S.: Studies of Analgesic Drugs; Comparative Respiratory Depressant Activity of Phenazocine and Morphine, Clin. Pharmacol. Ther. 2: 8 (Jan.-Feb.) 1961.*)

LEVALLORPHAN A total of 391 patients have been observed during labor. Two groups were formed by a method of random selection: 199 patients formed the treated group, who received a combination of alphaprodine (Nisentil) 60 mg. and levallorphan (Lorfan) 1 mg. intramuscularly at two-hourly intervals until the second stage was reached; and 192 patients formed the control group, who received alphaprodine 60 mg. without levallorphan at similar intervals. Facts recorded were pain relief, length of labor, complications of the third stage, side effects, and the condition of the infant at birth. Levallorphan was found to be extremely effective when used to counteract anoxia due to alphaprodine, but it did not appear to influence the results, according to statistical analysis, when combined with alphaprodine. (*Roberts, H., and Kuck, M.: Use of Alphaprodine and Levallorphan during Labour, Canad. Med. Ass. J. 83: 1088 (Nov. 19) 1960.*)

ATROPINE BY MOUTH One hundred and forty-seven children randomly selected were given oral and subcutaneous atropine before anesthesia. Atropine 0.85 mg. was given by mouth or 0.64 mg. subcutaneously, in each case with a barbiturate. The effects upon salivation, pupil size, pulse rate and anesthesia were observed. No differences were found between the two groups. It is concluded that atropine by mouth is satisfactory for premedication. (*Joseph, M. C., and*

Vale, R. J.: *Premedication with Atropine by Mouth, Lancet* 2: 1060 (Nov. 12) 1960.)

TRANQUILIZERS Most tranquilizers fall into two groups: the majors and the minors. The majors include the phenothiazines and Rauwolfia derivatives, while the minors can be divided into the substituted diols (Miltown), the diphenylamines (Vistaril), and a miscellaneous group (Trancopal, Librium). The majors produce emotional calmness with relatively little sedation; are capable of producing a reversible extrapyramidal syndrome; can provoke a high incidence of annoying side reactions; produce little dependency or habituation. The minor tranquilizers evoke a type of calmness or relaxation, but not of the same quality as that produced by the major group; do not produce extrapyramidal motor phenomena; exhibit a low incidence of side reactions; and may cause habituation. (Benson, W. M., and Schiele, B. C.: *Current Status of Tranquilizing and Antidepressant Drugs, J. Lancet* 80: 579 (Dec.) 1960.)

ANTIBIOTIC MUSCLE BLOCK The following antibiotics (colistin sulfate, neomycin sulfate, polymyxin A sulfate, polymyxin B sulfate, and viomycin sulfate) produced neuromuscular blockade when tested on sciatic nerve-gastrocnemius muscle preparations of the rabbit. Polymyxin B sulfate was the most active antibiotic being 1.5 times as active as colistin sulfate. Neostigmine methylsulfate antagonized the neuromuscular blockade produced by neomycin sulfate and viomycin but was not as effective an antagonist of the blockade produced by colistin sulfate, polymyxin A sulfate and polymyxin B sulfate. (Adamson, R. H., Marshall, F. N., and Long, J. P.: *Neuromuscular Blocking Properties of Various Antibiotics, Proc. Soc. Exp. Biol. Med.* 105: 494 (Dec.) 1960.)

CHLOROFORM The possibility that chloroform might be an anesthetic agent was suggested to James Y. Simpson by David Waldie, an obscure pharmacist. Simpson, in his published account of this new anesthetic, credited Waldie in a footnoted statement. This prompted Waldie to publish, after a number of years, a "restatement" in which he asked for some adequate recognition of his part in

the introduction of chloroform. (Agnew, L. R. C.: *Notes and Events—Waldie versus Simpson, J. Hist. Med. Allied Sci.* 15: 421 (Oct.) 1960.)

GERIATRIC SURGERY The case histories of 126 patients between the ages of 55 years and 79 years who underwent pulmonary operations have been reviewed. There were 9 deaths (7.1 per cent) within the thirty-day postoperative period. Cardiovascular and respiratory problems accounted for 8 of the deaths and produced the majority of non-fatal complications. Respiratory insufficiency and ineffectual cough with retained secretions were the major causes of respiratory difficulties. The use of tracheostomy in many such patients was valuable. Development of a cardiac arrhythmia was a common postoperative complication, especially in the elderly. Treatment with either quinidine or digitalis has been employed successfully. Prophylactic therapy with either drug is not routinely recommended. (Shields, T. W.: *Factors Influencing the Morbidity and Mortality in Older Aged Patient Undergoing Pulmonary Surgery, Surg., Gynec. Obstet.* 111: 598 (Nov.) 1960.)

DILUTIONAL HYPOVOLEMIA Transurethral resection of any form of prostatic obstruction may result in intravascular absorption of irrigating fluid from open venous sinuses. Absorption of large amounts of isotonic nonelectrolyte solutions produces two general types of reaction: (1) increase in the intravascular fluid volume, increasing the intravascular pressure and placing an added burden on an often weakened, aged heart; (2) dilution of the blood with diminution of protein and electrolytes. Clinically, the hazards of excessive fluid absorption lie in heart failure and pulmonary edema during resection, and in hypoelectrolytemic cardiovascular collapse toward the end of the procedure. Three clinical signs herald significant absorption of irrigating fluid: (1) slowing of the pulse, (2) rise in both the systolic and diastolic pressure, and (3) mental agitation of the patient. (Marx, G. F., and others: *Dilutional Hypovolemia During Transurethral Resection of the Prostate, J. A. M. A.* 174: 142 (Dec. 3) 1960.)