

the rise in blood pressure due to the administration of epinephrine, reduces the sympathetic and parasympathetic stimulating effects of nicotine and inhibits vagal reflexes. Given subcutaneously, it has no antihistaminic properties. Sedation was obtained following oral administration. Subcutaneous administration of methopromazine controlled the vomiting induced by apomorphine. It potentiates barbiturate and ether anesthesia and the analgesic effects of morphine. (*Courvoisier, S., and others: Pharmacodynamic Properties of Methopromazine, New Phenothiazine Derivative Related to Chlorpromazine, C. R. Soc. Biol. 151: 689 (Oct.) 1957.*)

THIAMINE BLOCK When a nerve is stimulated, thiamine chlorhydrate (vitamin B-1) appears at the neuromuscular junction at the same time as acetylcholine. Occasionally accidents have occurred when large doses of thiamine have been given intravenously, and certain observers have related those accidents to its curarizing properties. The neuromuscular block produced is a curare type of block (nondepolarizing). In the cat, small doses of thiamine (20 mg./kg.) which do not produce a neuromuscular block antagonize the action of tubocurarine, but repetition of these doses sensitizes the neuromuscular junction to the action of tubocurarine. The antagonistic action of thiamine to depolarizing agents is also demonstrated. Cocarboxylase (active enzymatic form of thiamine) and acetyl-thiamine have a marked neuromuscular blocking action of the same type as tubocurarine and thiamine; they antagonize the neuromuscular block of the depolarizing agents. The pyrimidine fraction and the thiazol fraction of the thiamine molecule do not show any neuromuscular blocking action. Pyrimine (anti-vitamin B-1) has, as thiamine, a neuromuscular blocking action. (*Cheyamol, J., and others: Upon Curarizing and Anticurarizing Actions of Thiamine and Its Derivations, Arch. internat. pharmacodyn. 3: 36 (June) 1957.*)

CURARE AND BLOOD PRESSURE D-tubocurarine chloride (0.1 to 0.75 mg./kg.) was given intravenously to 136 anesthetized patients. Blood pressure de-

creased in 117 patients, the rate and degree of fall being directly proportional to the dose of relaxant. The fall was greater in acutely sick patients. The individual variation to the same dose was considerable. (*Thomas, E. T.: Effect of d-Tubocurarine Chloride on Blood Pressure of Anaesthetized Patients, Lancet 2: 772 (Oct. 19) 1957.*)

CURARE PAIN RELIEF Tubadil (1.2 to 1.6 cc.) was given to 33 post-hemorrhoidectomy patients to help control pain. The effectiveness was compared with a group of 33 additional patients not given the relaxant. The narcotic requirements of the group given the relaxant were less than the control group. Muscle weakness and diplopia developed in 2 patients of the treated group. (*Rovner, H., and Huskell, B.: Study of Long Acting Muscle Relaxant (Tubadil) in Anorectal Surgery, Surg., Gynec. & Obst. 105: 488 (Oct.) 1957.*)

PRESTONAL A curare-like shorter acting muscle relaxant drug, Prestonal (Geigy), was used in 88 cases both in divided doses and continuous intravenous drip. A single injection of 30-70 mg. was sufficient for intubation, the larger dose giving more satisfactory cord paralysis. Smooth anesthesia was difficult to maintain with divided doses. Using Prestonal to supplement d-tubocurarine when more profound relaxation was desired was quite successful. Intravenous drip administration often provided relaxation short of the dose necessary to cause apnea. Complications encountered were tachycardia, hypertension, four instances of prolonged apnea, nine instances of disturbing restlessness in the recovery room, and a variable response to neostigmine and tensilon. (*Woodside, J. H., and others: New Muscle Relaxant Drug, Prestonal, South. M. J. 51: 80 (Jan.) 1958.*)

CITRATE INTOXICATION Plasma citric acid levels were measured by the pentabromacetate method in preoperative patients, in patients with liver disease, during gestation, during infusion of ACD solution, and during and after blood transfusion. Citric acid produces toxic effects by lowering the concentration of plasma