

constant in the passage of organic compounds into the cerebrospinal fluid has been evaluated in dogs anesthetized with chloralose and urethan. Drugs were administered through the dog's femoral vein and samples of spinal fluid were obtained from the cisterna magna. Drugs studied included aniline, aminopyrine, thiopental, pentobarbital, barbital, salicylic acid, among others. The results of the study indicate that the passage of drugs into the cerebrospinal fluid is governed mainly by two physical properties of the drugs. These are the degree of ionization of the drug and the lipid-solubility of undissociated drug molecule. Results add considerable validity to the assumption that the blood cerebrospinal fluid barrier behaves as an inert lipid membrane to most foreign organic compounds. (Brodie, B. B., Kurtz, H., and Schanker, L. S.: *Importance of Dissociation Constant and Lipid-Solubility in Influencing Passage of Drugs into Cerebrospinal Fluid*, *J. Pharmacol. Exp. Ther.* 130: 20 (Sept.) 1960.)

**UREA** Urea is becoming more commonly used in the management of cerebral and systemic edema. Therefore the renal and systemic hemodynamic effects of urea have been studied in healthy mongrel dogs anesthetized with thiopental. These studies indicate that the rapid injection of urea intravenously provokes a transient, abrupt, and significant increase in cardiac output associated with a decrease in systemic mean arterial pressure followed by a return of blood pressure to normal levels and a gradual fall in cardiac output. No increase in renal blood flow occurs, a substantial diuresis is noted, and the renal oxygen consumption increases in most of the animals. Until more exact information is obtained in human beings, it is considered unwise to utilize urea in patients who have marginal or reduced renal function. (Bounous, G., Onnis, M., and Shumacker, H. B., Jr.: *Some Hemodynamic Effects of Urea*, *Surg. Gynec. Obstet.* 111: 309 (Sept.) 1960.)

**ANGIOTONIN** Renin liberates Hypertension I from Hypertensinogen, found in the alpha-globulin fraction of the plasma. An enzyme converts Hypertensin I into Hypertensin II (Angiotonin) which in turn is broken down enzymatically. Angiotonin

raises arterial blood pressure by peripheral vasoconstriction in the systemic and pulmonary circulation more effectively than norepinephrine. One microgram per minute given intravenously causes an average rise of blood pressure of at least 20 mm. of mercury; the diastolic pressure rises by 15–20 mm. of mercury. Angiotonin causes less bradycardia than norepinephrine. No tachyphylaxis was observed either after repeated single intravenous injections or by long continued intravenous infusion. (Weis, K. H.: *Clinical Investigations of Synthetic Hypertension II, Der Anaesthetist* 9: 315 (Oct.) 1960.)

**CHLOROTHIAZIDE** Chlorothiazide given intravenously in doses of 0.7–5.0 mg./kg. to patients with cardiac or renal disease or both produces a reduction in cardiac output secondary to reduced return or venous pooling. There is a decrease in central venous pressure and in left ventricular work index and pulse rate. Consequent to the reduced cardiac output there is a fall in renal plasma flow and a decrease in the glomerular filtration rate. (Crosley, A. P., and others: *Studies of Mechanism of Action of Chlorothiazide in Cardiac and Renal Diseases. I. Acute Effects on Renal and Systemic Hemodynamics and Metabolism*, *J. Lab. Clin. Med.* 55: 182 (Feb.) 1960.)

**IPRONIAZID** Patients taking iproniazid should be given meperidine with caution as this combination of drugs may cause agitation with hyperactivity, or coma, hyperflexion and periodic respiration. Prednisolone intravenously in 25 mg. doses reverses this picture almost immediately. (Shee, J. C.: *Dangerous Potentiation of Pethidine by Iproniazid, and its Treatment*, *Brit. Med. J.* 2: 507 (Aug. 13) 1960.)

**TRANSFUSION THERAPY** Current concepts of the maximum utilization of blood and its components specify the following indications for the various preparations now available: Whole blood (ACD): Maintenance of effective blood volume; hemorrhage, shock. Whole blood (ion exchange): Avoidance of citrate toxicity; hepatic disease; exchange transfusion; plasmapheresis. Whole blood (heparin): Extracorporeal circulation, pump-