

thetia, and postoperatively. Although increased bleeding under cyclopropane is apparently real, in this study there was no difference in the changes in blood clotting factors from those seen during ether anesthesia. (*Howland, W. S., and others: Effect of Cyclopropane Anesthesia on Blood Coagulation, Surgery* 46: 948 (Nov.) 1959.)

BLOOD VOLUME The location of the tip of a catheter introduced through an antecubital vein was determined by means of the exploring electrode of the electrocardiogram. Once the catheter was in place in the right atrium, it was used to monitor right atrial pressure in twenty-five post thoractomy patients. The estimation of the blood replacement needed by variation in the continually monitored right atrial pressure was demonstrated. It is suggested that this method be used more often for estimation of the volume of blood replacement needed. (*Hughes, R. E., and Magovern, G. J.: Relationship Between Right Atrial Pressure and Blood Volume, A. M. A. Arch. Surg.* 79: 238 (Aug.) 1959.)

EXPERIMENTAL HEMORRHAGE Blood volume determinations by the RIHSA method were made in anesthetized dogs following which a predetermined per cent of the measured blood volume was rapidly removed. The survival rate of these dogs then was determined. Dogs which were bled 35 per cent of blood volume survived. A 50 per cent mortality occurred at somewhere between 41 and 43 per cent of the blood volume and the majority of the animals died at 45 per cent of the blood volume. The efficacy of this method for graded hemorrhage was presented as compared to cc./kg. of body weight. The hemorrhage on the basis of per cent of blood volume is much more predictable. (*Swan, H., and others: Experimental Hemorrhage (Prediction of Mortality Following Acute Measured Hemorrhage in Dog), A. M. A. Arch. Surg.* 79: 176 (Aug.) 1959.)

HYPOTENSION The effect of urological instrumentation on the blood pressure in individuals with paraplegia at various spinal levels was studied. An elevation of the systolic pressure was noted in those patients with

the high cervical cord lesion whereas in patients with no spinal cord disease there was a drop in the blood pressure. The pathways by which the impulse may be mediated to cause this reflex blood pressure change is discussed. (*Mannion, R. A., and Cottrell, T.: Blood Pressure Changes in Paraplegics During Urological Manipulations, A. M. A. Arch. Surg.* 78: 949 (June) 1959.)

HISTAMINE RELEASE The dog and other members of the canine family exhibit sharp hypotensive reactions following the intravenous injection of certain blood substitutes. One hundred forty-eight dogs have been anesthetized with pentobarbital, blood pressures recorded by Statham transducers and plasma histamine levels measured before and after the intravenous infusion of acacia, dextran, gelatin, polyvinylpyrrolidone, and other substances. Injection of acacia was characterized by a high incidence of marked hypotensive responses associated with high levels of plasma histamine. None of the hypotensive responses was fatal. PVP produced hypotensive reactions which increased in incidence and severity with increasing doses. This hypotension was frequently fatal. Dextran exhibited an exceptionally low incidence of such reactions. (*Walton, R. P., Richardson, J. A., and Thompson, W. L.: Hypotension and Histamine Release Following Intravenous Injection of Plasma Substitutes, J. Pharmacol. & Exper. Therap.* 127: 39 (Sept.) 1959.)

METABOLIC ACIDOSIS The changes in the oxyhemoglobin dissociation curve caused by changes in the pH is known as the Bohr effect. Prior to placing a patient on the bypass, it is common to hyperventilate him and produce a respiratory alkalosis and an elevated pH. This may produce an intracellular acidosis by increased lactic acid formation. During bypass if the blood pH fails below 7.3, sodium bicarbonate, 4 mEq. per kilogram of body weight is given directly into the oxygenator. (*Magovern, G. J., and others: Metabolic Acidosis and the Dissociation Curve of Hemoglobin during Extracorporeal Circulation, J. Thoracic and Cardiovasc. Surgery* 38: 561 (Nov.) 1959.)