

ARTERIOGRAPHY Changes in the vascular tone of the leg of the dog were studied following intra-arterial injection of Diodrast, Urokon, and Renografin. Injections of Diodrast and Urokon produced vasoconstriction, 70 per cent Urokon causing the most severe and prolonged effect. Renografin produced the least amount of vasospasm. Priscoline did not protect against the spasm. There was a suggestion that intra-arterial procaine gave some protection against vasoconstriction. (Moore, T. C., and others: *Use of Impedance Plethysmography in Evaluation of Peripheral Vascular Response to Arteriography, Surgery* 44: 345 (Aug.) 1958.)

MITRAL INSUFFICIENCY Surgical correction under direct vision using the pump-oxygenator was attempted in 13 patients with pure mitral insufficiency and in 4 with a mixture of stenosis and insufficiency. A right sided approach was used in 13 of the above because it permits a smaller incision with better exposure. If the mitral valve is maintained partially open, there is little danger of the ventricular action pushing air past the closed aortic valve. Because more information can be obtained about the functioning mitral valve, elective cardiac arrest is not desirable. In 4 of the subjects, postoperative left auricular pressures were reported and were markedly reduced compared to preoperative values. (Kay, E. B., and others: *Direct Vision Correction of Mitral Insufficiency, Surgery* 44: 325 (Aug.) 1958.)

BLEEDING TIME Refrigeration of blood for 10 minutes at 1 to 2 C. causes it to lose its normal hemostatic properties, not recoverable by heating to 37 C. Violent aeration of blood in air, by liberating CO₂ and driving the pH to the alkaline side, also renders blood non-hemostatic. Hemostatic action may be recovered by returning the liberated CO₂ to blood by shaking in atmospheric air containing 9 per cent CO₂. (Cruz, W. O., and Oliveira, A. C.: *Influence of Cooling and CO₂ Content of Blood on Bleeding Time, Proc. Soc. Exper. Biol. & Med.* 98: 461 (July) 1958.)

FROZEN RED BLOOD CELLS Blood collected in plastic bags is processed in a

closed-system Cohn centrifuge, red blood cells are separated from plasma and glycerol solution gradually added to the red blood cells to a final concentration of 50 per cent. The glycerolized red blood cells are then stored in the frozen state at either -80 C or -120 C. When ready for use the cells are deglycerolized, resuspended and stored at 4 C and used clinically. Even after storage at these low temperatures for periods up to 19 months, the red blood cells appeared therapeutically comparable to cells stored at 4 C up to 21 days in standard anticoagulant solution. Since sterility is maintained at every step, an additional post-thawing storage of the red blood cells for up to 11 days at 4 C is possible. No transfusion reactions of any kind were noted. (Tullis, J. S., and others: *Studies on the In Vivo Survival of Glycerolized and Frozen Human Red Blood Cells, J. A. M. A.* 168: 399 (Sept. 27) 1958, and Ketchel, M. M., and others: *Use of Biomechanical Equipment for the Long-Term Preservation of Erythrocytes, J. A. M. A.* 168: 404 (Sept. 27) 1958.)

SHOCK Artificial hibernation achieved by using the "lytic cocktail" abolishes the "non-harmonious" state characteristic of the body response to an injury. Neuroplegia by means of the lytic cocktail plus refrigeration (artificial hibernation) reduces the metabolic changes and the oxygen requirements of the body; thus increasing the chance for recovery even in cases of "irreversible shock" that have not improved with the usual treatment consistent in blood and plasma transfusions and vasopressor agents. With the exception of primary shock artificial hibernation seems to be worth a trial in the treatment of shock. (Govea, J., and others: *New Concepts on Pathologic Physiology of Shock and Its Treatment by Artificial Hibernation, Revista de la Confederacion Medica Panamericana* 3: 129 (April) 1956.)

HYPOFIBRINOGENEMIA The hemorrhages following abruptio placentae and surgery for cirrhosis of the liver are primarily due to afibrinogenemia caused by fibrinolysis. When low fibrinogen levels are encountered, the total profibrinolysin and inhibitor levels are also reduced. The profibrinolysin is activated in these cases, thus reducing the quan-