Bradykinin, produced at birth, may be a mediator of neonatal circulatory changes, including constriction of the ductus arteriosus, dilatation of pulmonary vasculature and constriction of umbilical vessels. (McImon, K. L., and others: Kinins: Possible Mediators of Neonatal Circulatory Changes in Man, J. Clin. Invest. 47: 1295 (June) 1968.)

HEMOGLOBIN CATABOLISM Varying quantities of normal canine erythrocytes damaged by incubation with N-ethylmaleimide were injected into the circulatory systems of The quantities of hemoanesthetized dogs. globin injected ranged from 0.058 to 0.552 g/kg body weight. Although 0.364 g hemoglobin/kg body weight was associated with normal sequestration, above that amount the rate of catabolism of hemoglobin to carbon monoxide reached a maximum. As a result, large quantities of hemoglobin entered the These data indicate that: (a) the maximal rate of hemoglobin catabolism in these dogs averaged about 0.07 g/kg body weight/ hr; (b) hemoglobinemia can result from overloading the reticuloendothelial system with damaged sequestered cells and, therefore, may not always reflect "intravascular" hemolysis; (c) the sequestering function of the reticuloendothelial system does not appear to limit the maximal rate of hemoglobin catabolism. (Coburn, R. F., and Kanc, P. B.: Maximal Erythrocyte and Hemoglobin Catabolism, J. Clin. Invest. 47: 1435 (June) 1968.)

PHEOCHROMOCYTOMA Blood volumes in patients with pheochromocytoma, especially those with fixed hypertension, are low. Preoperatively, plasma volume and erythrocyte mass are determined. Deficits are corrected by blood transfusions and by the use of alphaand beta-blocking agents. In patients thus prepared, no postoperative norepinephrine infusions have been necessary. particularly suitable for anesthesia because of its depressant effect on catecholamine liberation and its ability to prevent hypertension (Kalff, G.: Anesthesiologic during surgery. Problems in Patients with Pheochromocytoma, Der Anaesthesist 17: 43 (Feb.) 1968.)

VEINS The veins have served medicine well.

□ Their size and accessibility have made possible≤ the development of our vast array of moderno diagnostic and therapeutic methods which depend upon the simple technique of venipunc-What are the functions of the veins? First, they act as conduits by which blood canreturn from the tissues to the heart. Second they may contribute to the total peripheral vascular resistance, especially in the presence of precapillary vessel dilatation. Third, theyon probably play an important role in the controlo of fluid exchange between blood and extra-S cellular spaces by altering the ratio between = pre- and postcapillary resistance. Fourth, they almost certainly act as a blood depot, for a large quantity of blood lies in the postcapillary side of the circulation. (Browse, N. L.: The Veins and Cardiovascular Reflexes, Ann. Rou. Coll. Surg. Eng. 42: 307 (May) 1968.)

101

TRANSFUSION Hypotension and homologous blood transfusion can produce perioderaterial hemorrhage, alveolar hemorrhage, and edema in dog lungs. These do not occur with autologous transfusion. The underlying event is pulmonary arteriolar vasoconstriction associated with periarterial hemorrhage. This is followed by a decompensatory vasodilatory phase characterized by capillary engorgement diffuse pulmonary hemorrhage, and cedemac (Verth, F. J., and others: Pulmonary Microofficial of Pump-Oxygenator Procedures. Surgent 64: 93 (July) 1968.)

HEMOPHILIA Substances used for treated ing or preventing hemorrhage from hemophilia include fresh plasma or fresh blood factor VIII concentrates prepared from animals plasma or concentrates of human origin sucled as Colin's fraction I and antihemophilic globustiin. However, all of these substances have serious disadvantages. A new substance, antique hemophilic cryoprecipitate, rich in factor VIII was prepared from human plasma by cold precipitation and used to treat eight hemophiliaes on 12 occasions. Assays showed as steep rise in factor VIII activity after the infunction, and in some cases clotting function was restored to normal. The venous blood clot-