capnia, diminution of cerebral oxygen requirements by halothane anesthesia, spontaneous respiration, and maintenance of each patient's normal blood pressure during the reconstruction. The incidence of patient recovery is comparable to that in recent reports of similar work, and is superior to earlier experience with local anesthesia. Cerebral venous oxygen saturation proved to be the best guide to management; arterial carbon dioxide tension is an inadequate index of cerebral blood flow and oxygenation in cerebrovascular atherosclerosis. Few arrhythmias were observed during hypercapnia. It is probably desirable to maintain an optimal arterial CO_2 tension for good cerebral circulation in all patients. (*White, C. W., Jr., and others: Anesthetic Management for Carotid Artery Surgery, J.A.M.A. 202: 1023 (Dec.) 1967.*)

SHOCK Changes in microcirculation and flow properties of blood were measured in 62 patients following varying degrees of trauma and shock. Cellular clumping was observed in the conjunctival circulation of all patients with trauma or major surgical procedures, but did not seem to be reliable in distinguishing abnormal microcirculatory status. A stickiness or agglutination of red cells from certain trauma patients, observed on thin-layer slides, was decreased by addition of dextran 40. Changes in packed-cell viscosity after addition of dextran 40 or 80 appeared to be the most useful and objective test for the presence of agglutination and prediction of mortality. (*Long, D. M., Jr., and others: Pathomechanics of Microcirculatory Changes in Trauma and Shock, Surg. Clin. N. Amer. 47: 1371 (Dec.) 1967.*)

CARDIAC SHOCK Pulmonary blood volume (PBV), measured following induced acute myocardial infarction and shock in dogs, was found to be reduced significantly. At the same time, cardiac output fell 25 per cent and total peripheral resistance fell 33 per cent. Left ventricular end-diastolic and right atrial pressures were unchanged. These findings may indicate that reduced left ventricular contractility and heart failure are relatively unimportant at the onset of cardiogenic shock. Rather, a decrease in peripheral vascular tone may be the primary factor. (*Budow, J., and others: Pulmonary Blood Volume in Early Shock Following Experimental Myocardial Infarction, Amer. J. Med. Sci. 254: 675 (Nov.) 1967.*)

AUTOLOGOUS TRANSFUSION In a study of 51 patients undergoing cardiovascular operations, single or multiple phlebotomies were performed prior to surgery. Thirty patients underwent a single phlebotomy, 15 patients two phlebotomies, three patients three phlebotomies, and one patient underwent four phlebotomies. The advantages obtained with the use of autotransfusions were: 1) prevention of transfusion reactions; 2) prevention of serum hepatitis and other infections; 3) availability of rare blood; 4) early reticulocytosis and accelerated erythropoiesis. The decrease in hemoglobin level was found to result in increased erythropoietin secretion, and consequently in accelerated erythropoiesis. (*Cuello, L., and others: Autologous Blood Transfusion in Cardiovascular Surgery, Transfusion 7: 309 (July) 1967.*)

POOLED PLASMA An A-positive 9-year-old girl, severely burned, received 5,700 ml. of pooled plasma over a 72-hour period. Hemolytic reactions then occurred after administration of A-positive blood. Circulating anti-A antibodies were found in her serum. Apparently, A antigens in her tissues became saturated with anti-A antibodies from the pooled plasma. These loosely-held, partially-bound antibodies then reacted with the transfused red cells causing hemolysis. Although this patient had demonstrable circulating antibodies to her own blood type, a patient whose tissues were less saturated with antibody might not. The blood would then cross match satisfactorily, but hemolysis would occur during transfusion due to the much greater affinity of the antibody for red-cell antigen than for the tissue antigen. This problem can be largely eliminated by using gamma-globulin-free (*i.e.*, antibody-free) plasma (Plasmanate) and by using washed O-positive cells for transfusion. In subsequent burned patients given washed cells and gamma-globulin-