

tion of Histamine, Surg. Gynec. Obstet. 122: 1003 (May) 1966.)

HEPATIC FLOW IN SHOCK The internal circulation of the liver in dogs was measured by an indicator dilution technique before and during shock produced by a *Staphylococcus aureus* exotoxin. Portal blood flow was redistributed during exotoxin shock, one portion flowing through a fast channel and the other through a slower path. The hepatic artery tract may appear occluded even under baseline conditions. This occlusion is often relieved by exotoxin shock. When the exotoxin is administered to a dog with non-occluded hepatic artery circulation, the dilution curve may indicate two compartment flow. This study emphasizes the complexity of the internal hepatic circulation and demonstrates vascular control mechanisms which need clarification. (Vetto, R. M., and others: *A Dye Dilution Study of the Hepatic Circulation During Staphylococcus Toxin Shock, Surg. Gynec. Obstet.* 121: 1263 (Dec.) 1965.)

VASOPRESSORS IN SHOCK The hemodynamic responses to various vasopressors were compared in a series of ten postoperative patients in shock. The shock had resulted from trauma and blood loss but in four cases was complicated by sepsis. The diagnosis was based on hypotension, tachycardia, pallor, restlessness, tachypnea, and a decrease in urine output. No patient in this series had a proven myocardial infarction. Cardiac output, heart rate, arterial blood pressure, and central venous pressure were measured prior to and during the infusion of vasopressors. Norepinephrine, 8 mg. per liter, metaraminol, 200 mg. per liter, or isoproterenol, 2 mg. per liter, was administered at a rate of 60 drops per minute until relatively stable vital signs were observed. Each drug increased the mean arterial and central venous pressures, but a statistically significant increase in cardiac output was noted only during infusion of isoproterenol. Norepinephrine and metaraminol significantly increased peripheral resistance while isoproterenol decreased peripheral resistance in half of the patients and left it unchanged in the others. A significant increase in heart rate was

also observed with isoproterenol. There were considerable variations in response to therapy which may have been related to variations in the severity of the shock present. (Brown, R. S., and others: *Hemodynamic Effects of Sympathomimetic Amines in Clinical Shock, Surg. Gynec. Obstet.* 122: 303 (Feb.) 1966.)

BLOOD VOLUME Blood volume determinations were performed in 80 patients undergoing surgical treatment for cardiac or vascular diseases. Blood volume and hematocrit were measured before and immediately after operation and at intervals during convalescence using ¹²⁵I labeled human serum albumin. The study illustrates many of the advantages of blood volume measurements and reveals some limitations of blood volume replacement based solely on clinical assessments and measurements of hematocrit, arterial and central venous pressures, heart rate and urine output. Often the only clue to the existence and magnitude of postoperative deficits was provided by blood volume measurements. Deficits of 30-40 per cent were seen without any clinical evidence. Serial observations clearly indicated that during and immediately after operation, blood volume and hematocrit were not related variables. Blood replacement therapy based on volume determinations is considerably more accurate and contributes to better management and smoother convalescence for the patient. (Cartmill, T. B., and others: *Blood Volume Measurements in Cardiovascular Surgical Patients, Surg. Gynec. Obstet.* 121: 1269 (Dec.) 1965.)

THROMBOSIS PREVENTION A 5-day regimen of continuous infusion of low molecular weight dextran (1,000 ml. per 24 hours) following reconstructive procedures on the femoral, popliteal, external iliac and brachiocephalic arteries was associated with a 90 per cent incidence of vascular patency in the early postoperative period. The absence of wound hematoma or any detectible hemostatic deficit in these patients is of interest. Experimental studies have indicated that low molecular weight dextran prevents early postoperative thrombosis of small arteries submitted to arterial reconstructive procedures. Theoretically,