tween them increased from 2.9 mm Hg to 3.8 and 3.9. The volume of blood in large veins decreased 27 and 58 per cent after the hemorrhage, whereas the volume of blood in small veins decreased significantly less. (*Kerr, A. R., and Kirklin, J. W.: Changes in Canine Venous Volume and Pressure during Hemorrhage, Surgery 68: 520 (Sept.) 1970.*)

INFERIOR CAVAL LIGATION Ligation of the inferior vena cava results in minimal reduction in cardiac output. Long-term evaluation of cardiac indexes in five patients with ligation and five controls showed no differences with the subjects in supine or reverse Trendelenberg positions. During exercise in the vertical position cardiac index was lower in the patients with ligation. (*Varat, M., Fowler, N., and Adolph, R.: Cardiac Output Response to Exercise in Patients with Inferior Vena Cava Ligation, Circulation 42: 445 (Sept.) 1970.*) ABSTRACTER'S COMMENT: Immediately after inferior vena caval ligation venous return decreases from 20 to 45 per cent, but the long-term hemodynamic effects of caval ligation are insignificant.

VASODILATION The coronary vasodilator Persantine was given to animals before and at 30-minute intervals after hemorrhagic shock induced by bleeding. The mean reversal time of the Persantine-treated group was significantly greater than that of controls. Persantine caused no systemic vasodilatation. Reduced coronary flow during hemorrhagic hypotension may be a contributing factor in the development of irreversible shock. (*Jones, C. E., and others: Effect of a Coronary Vasodilator on the Development of Irreversible Hemorrhagic Shock, Surgery 68: 356 (Aug.) 1970.*)

HYPERTHERMIA AND CEREBROVASCULAR RESPONSE Cerebral blood flow (CBF) was measured using a technique of continuous infusion of 4-radio-iodoantipyrine wth external scintillation counting. Rectal temperature (T_r), mean arterial pressure (MAP), heart rate (HR), respiratory rate (RR), Pa_{O_2}, Pa_{CO_2}, and *p*H were measured at T_r values of 38, 40, 42, and 43 C. Cerebrovascular resistance (CVR) and the ratio CBF/Pa_{CO_2} (apparent CO_2 sensitivity of cerebral circulation) were calculated. Pa_{O_2} was increased and Pa_{CO_2} was decreased at all hyperthermic T_r levels. CBF was not significantly altered from control values during hyperthermia. CVR was decreased and apparent CO_2 sensitivity increased at T_r values of 42 and 43 C. These data indicate that during hyperthermia and its accompanying hypocapnia, CBF stability resulted, in part, from apparent changes in the cerebral vascular sensitivity to CO_2. (*Nemoto, E. M., and Frankel, H. M.: Cerebrovascular Response during Progressive Hyperthermia in Dogs, Amer. J. Physiol. 218: 1060 (April) 1970.*)

CEREBRAL METABOLISM DURING SEIZURES Cerebral energy metabolism during electroshock seizures were studied in paralyzed and unparalyzed mice. In unparalyzed mice, adenosine triphosphate, phosphocreatine, and glucose levels decreased during the seizures and returned only after tonic muscle contraction stopped and ventilation began. Cerebral energy expenditure was three to four times normal and could not be balanced by anaerobic glycolysis despite a threefold increase in glucose consumption. Cerebral lactate concentration and calculated hydrogen ion concentration were increased, but both returned toward normal long after other substrates had reached normal. In paralyzed and ventilated mice, cerebral energy production kept pace with energy expenditure; the brain incurred no metabolic debt, and acid products did not accumulate. During the postictal periods in both unparalyzed and paralyzed and ventilated animals, brain energy stores were elevated above normal and the energy use rates decreased. The characteristics of ictal and postictal phases of the EEG in paralyzed animals correlated well with behavioral events in unparalyzed mice. Thus, cerebral anoxia appeared neither to limit seizure duration nor to cause postictal depression. (*Collins, R. C., Posner, J. B., and Plum, F.: Cerebral Energy Metabolism during Electroshock Seizures in Mice, Amer. J. Physiol. 218: 943 (April) 1970.*) ABSTRACTER'S COMMENT: These studies suggest that patients in status epilepticus