suggestion that the drug had a direct effect on the myocardium. Likewise during chloroform and cyclopropane anesthesia the cardiac output remained within normal limits. Only when a thiopentone-nitrous oxide-oxygen technique was used with intermittent thiopentone injections was there any tendency for the output to fall with time. In the maintenance of cardiac output the proper management of anaesthesia is more important than the agent used. (*Payne, J. P.: Use of a Dye Dilution Technique in Studies of Blood Volume and Cardiac Output During Anaesthesia and Surgery, Ann. Roy. Coll. Surg. Eng. 34: 384 (June) 1964.*)

PERIPHERAL RESISTANCE Sixteen dogs underwent total body perfusion with the use of the rotating disc oxygenator primed with cross-matched whole blood. Perfusion rate was based on direct measurement of basal cardiac output. Calculation of total peripheral vascular resistance before, during, and after the perfusion showed a slight decrease with the onset of perfusion under the above conditions. Metabolic studies suggested an adequate perfusion with no significant change in arteriovenous oxygen difference and an essentially normal hydrogen ion concentration. With pressure-controlled perfusion, peripheral vascular resistance rose during perfusion and metabolic studies showed the development of a progressive hypoxic acidosis. (*Cordell, A. R., and others: Peripheral Vascular Resistance in Whole Body Perfusion, J. Thor. Cardiov. Surg. 48: 94 (July) 1964.*)

RENAL CIRCULATION Normal animals have a very constant perfusion of the kidneys which is slightly raised by increase in carbon dioxide and slightly decreased by hypoxia. After noradrenaline, perfusion is decreased while systemic pressure is increased. After adrenalin, perfusion and blood pressure are diminished. After vasopressin systemic pressure is increased, perfusion is increased in the cat and decreased in the dog. After hemorrhage, renal perfusion is decreased to 12 per cent of normal and after reinfusion of blood normal renal perfusion is not reached after 2 hours. In hemorrhagic shock no substance is capable of increasing renal perfusion. (*Weber, V.: Effect of Vasoactive Substances on the Renal Cortex in Normal Animals and in Shock, Z. Kreislaufforsch 53: 619 (June) 1964.*)

NOREPINEPHRINE Following intravenous administration of varying doses of norepinephrine in dogs, measurements were made of left ventricular and aortic pressure, the tension-time index, and cardiac output. Mean aortic pressure and cardiac output increased significantly during the first 15 minutes of infusion, and thereafter progressively declined below control levels throughout the remainder of the infusion. When norepinephrine was discontinued, further reductions in cardiac output and pressure were observed. Magnitude of the changes was related to dosage. Left ventricular end-diastolic pressure remained normal throughout the period of the experiment. Hypotensive, low cardiac output state associated with prolonged norepinephrine infusion does not represent primary cardiac insufficiency, although morphologic evidence of myocardial damage is invariably present. (*Vittands, I., Moss, A., and Schenk, E. A.: Cardiovascular Effects of Prolonged Norepinephrine Infusion, Fed. Proc. 23: 232 (March–April) 1964.*)

EXTRACORPORAL CIRCULATION Changes in the coagulation mechanism are proportional to the duration of extracorporeal perfusion. Thrombocytopenia, hypofibrinogenemia, and hypothrombinemia of moderate degree occurred during short perfusions (1 hour), and were not associated with bleeding complications. During long perfusions (over 1 hour) there was increased fibrinolytic activity, circulating anticoagulants appeared, and abnormal bleeding occurred. Aminocaproic acid should be administered prophylactically during long perfusions. (*Marin, H. M.: Hemostatic Mechanism in Extracorporeal Circulation, Arch. Surg. 88: 988 (June) 1964.*)

RINGER'S LACTATE Cardiopulmonary bypass was performed in 18 patients with the disc oxygenator, primed with either 5 per cent glucose and water, Ringer's, or Ringer's lactate solution. The latter was the more physiologic perfusate in that the electrolytes were maintained within normal range and the lactate