

viscero-cortical reflex arc with largactil (chlorpromazine). (Mandl, D., and Kenedi, I.: *Reflex Spasm of the Coronary Vessels in Acute Cardiac Infarction, Terap, Arkh.* 5: 56 1958.)

INTRA-ARTERIAL THIOPIENTAL In rabbits thiopental given intra-arterially produces transient arterial spasm of the femoral artery. Tissue slough in rabbit ears following intra-arterial thiopental appears to be due to some property of the drug other than its alkalinity. More dilute solutions produce less necrosis. The area of necrosis is not lessened by intra-arterial vasodilators or local anesthetics, but is reduced by sympathectomy and anticoagulants. (Kinmouth, J. B., and Shepherd, R. C.: *Accidental Injection of Thiopentone into Arteries, Studies of Pathology and Treatment, Brit. Med. J.* 2: 914 (Nov. 7) 1959.)

NEW ANALEPTIC A study of Micoren (Prethcamid), a mixture of aliphatic amines, has shown its analeptic action sufficient to abolish barbiturate anesthesia in animals without causing convulsions or vomiting. It increases the depth of respiration and causes a slight rise in blood pressure. It has been shown to produce a persistent reversal of respiratory depression due to morphine, meperidine, thiopental, and hexobarbitone. (Dobkin, A., and Mitchell, D.: *Micoren in Barbiturate Poisoning, Canad. M. A. J.* 81: 1009 (Dec. 15) 1960.)

INSULIN AND LIVER The livers of anesthetized dogs were cannulated and perfused *in vivo*. Following a control period insulin was administered via the portal venous catheter. The perfusate was sampled at the outflow and analyzed for glucose content. Liver glycogen of biopsied specimens was determined. Glucose values rose slowly from 85 to 150 mg. per 100 ml. with insulin perfusion and plateaued at 200 to 300 mg. per 100 ml. by 60 to 90 minutes. Serum potassium levels were minimally changed. Liver glycogen values, although highly variable, were not significantly increased following insulin. These data are interpreted as an unchanged hepatic glucose output at approximately 2 to 3 mg. per kg. per minute.

Chronic experiments were also performed on unanesthetized dogs whose portal, hepatic, and splenic arteries had been catheterized. Simultaneous blood samples were taken from each catheter at 5 to 15 minute intervals before and after insulin. A fall in glucose concentration was observed 5 minutes after administration of insulin, which became maximal in 30 minutes and was followed by a rapid recovery to near normal values. However, while increased uptake in nonhepatic splanchnic tissues occurred, no increase in uptake was noted by the liver. These two experiments suggests that insulin has no direct effect upon the liver but produces an uptake of glucose by the nonhepatic splanchnic tissues. (Shoemaker, W. C., and others: *The Hepatic Glucose Response to Insulin in the Unanesthetized Dog, J. Biol. Chem.* 234: 1631 (July) 1959.)

CATECHOLAMINES AND SKIN To differentiate between those changes in tissue oxygenation which were the result of stress per se and those of reflex release of epinephrine and norepinephrine occasioned by stress, tissue oxygen tension was measured polarographically in six normal adults given infusions of epinephrine and norepinephrine while breathing room air at rest. With norepinephrine the systolic blood pressure rose an average of 37 mm. Hg, the diastolic 31 mm. Hg, while the pulse rate decreased 18 beats per minute. With epinephrine, the systolic blood pressure rose an average of 34 mm. Hg; however, the diastolic pressure decreased an average of 6 mm. Hg and the pulse rate increased 14 beats per minute. Skin oxygen tension decreased an average of about 25 per cent during the infusions. The etiology of these decreases was not determined. However, the decrease seen with norepinephrine is interpreted to mean that the drug acts primarily by decreasing the rate of delivery of arterial blood to skin as a result of intense vasoconstriction, decreased cardiac output or both. The decrease associated with epinephrine may be attributed to increased oxygen utilization and possibly cutaneous vasoconstriction. (Greene, N. M., Davis, M. T., and Bell, J. K. S.: *Skin Oxygen Tension During Administration of Epinephrine and Norepinephrine to Normal Man, Yale J. Biol. & Med.* 32: 93 (Nov.) 1959.)