

rect vasomotor response to such stimulation is shown to be mediated by other discrete pathways from the cortex. (Ferguson, R. W., Folkow, B., Mitts, M. G., and Hoff, E. C.: *Effect of Cortical Stimulation upon Epinephrine Activity, J. Neurophysiol.* 20: 329 (July) 1957.)

#### CATECHOL AMINE RESPONSE

High tolerance to positive G stress produced by acceleration in the human centrifuge was found associated with high urinary output of a norepinephrine-like substance. Low G tolerance was associated with low norepinephrine and high epinephrine output. It was similarly demonstrated that individuals exhibiting anxiety during stress showed a predominant urinary excretion of epinephrine while those exhibiting aggression or hostility released increased amounts of norepinephrine. (Zuidema, G., Silverman, A. J., Cohen, S. I., and Goodall, McC.: *Catechol Amine and Physiologic Correlates of Vascular Responses, New England J. Med.* 256: 976 (May 23) 1957.)

**HYPOTHERMIA** In 23 patients cooling produced a transient rise in blood pressure followed by a fall which was maximal 30 minutes after body temperature reached its lowest point. The pulse rate fell progressively. Blood pressure and pulse were lost to auscultation and palpation during cooling. The cardiovascular reflexes appear to be intact and adequate in humans under hypothermia between 26 to 31 C. (Blair, E., and others: *Study of Cardiovascular Changes During Cooling and Rewarming in Human Subjects Undergoing Total Circulatory Occlusion, J. Thoracic Surg.* 33: 707 (June) 1957.)

**HYPOTHERMIA** A comparative analysis was made of the ability of adrenergic blocking agents to facilitate the induction of hypothermia. Chlorpromazine permitted the most rapid induction of hypothermia and was most effective in preventing shivering. A study of renal function was also made in 57 dogs following hypothermia and adrenergic and ganglionic blocking agents. None of the agents were effective in providing any significant protection against depression in renal function associated with hypothermia. (Moyer, J. H., Greenfield, L., Heider, C., and Hand-

ley, C.: *Hypothermia II: Effect of Agents which Depress Sympathetic Nervous System on Hypothermic Induction Time and on Renal Functional Alterations Due to Hypothermia, Ann. Surg.* 146: 12 (July) 1957.)

#### PROLONGED HYPOTHERMIA

Twenty-three dogs were induced with ether and carried to 23 C. and held at this temperature up to 26 hours. After 2 hours, there was a decrease of 76 per cent in the cardiac index. Cardiac index then remained the same until between 10 to 14 hours when there was a significant fall. If prolonged for 24 hours hypothermia produced a severe fall in cardiac output, resulting in stagnant anoxemia and an increased arterio-venous oxygen difference. (Fisher, B., and others: *Effect of Hypothermia of 2 to 24 Hours on Oxygen Consumption and Cardiac Output in Dog, Am. J. Physiol.* 188: 473 (March) 1957.)

**HYPOTHERMIA** Tensile strength is reduced in wounds inflicted during hypothermia below 28 C. in rabbits. (Bertil, L., and Bengt, Z.: *Effects of Induced Hypothermia on Wound Healing: An Experimental Study in Rabbit, Acta chir. scandinav.* 112: 152 (Feb.) 1957.)

**LOCAL HYPOTHERMIA** Using cold sterile saline intraperitoneally the temperature of the liver in dogs was lowered without marked systemic temperature lowering. This technique was employed in one patient for a partial hepatectomy. (Huggins, C., Carter, E. L., and McDermott, W. V.: *Differential Hypothermia in Experimental Hepatic Surgery, A. M. A. Arch. Surg.* 74: 327 (March) 1957.)

**CARDIAC ARREST** Induced cardiac arrest with potassium citrate solution proved to be an invaluable adjunct in the surgical repair of certain cardiac defects. Because of some difficulties with the induced hyperpotassemia, the use of acetylcholine has been suggested to produce temporary cardiac arrest in intra-cardiac surgery. (Cooley, D. A., Belmonte, B. A., DeBakey, M. E., and Latson, J. R.: *Temporary Extracorporeal Circulation in Surgical Treatment of Cardiac and Aortic Disease, Ann. Surg.* 145: 898 (June) 1957.)