

which are beneficial in hypothermia: It reduces oxygen uptake and heat production, thereby aiding in cooling. It suppresses shivering, which elevates the oxygen requirements as much as 400 per cent. It is a vasodilator, particularly of the cerebral arteries, and as such may counteract the severe vasoconstriction of deep hypothermia. (3) Hypothermia protects both the life and the brain of the asphyxiated newborn human infant. There appears to be no rational basis for the use of heat as part of the treatment of asphyxia. (Miller, J. A., and Marini, A.: *Cardiac Activity in Apneic Five Hundred Eighty Gram Human Fetus*, *J. A. M. A.* 167: 976 (June 21) 1958.)

HYPOTHERMIA Increased tolerance of a cold dog heart to bypass and asystole produced by potassium, magnesium or neostigmine was postulated and recovery after 52 minutes was demonstrated. Increased tolerance to bypass during hypothermia was demonstrated as compared to a comparable group of normothermic dogs. (Sealy, W., and others: *Potassium, Magnesium and Neostigmine for Controlled Cardioplegia*, *A. M. A. Arch. of Surg.* 77: 33 (July) 1958.)

HYPOTHERMIA A marked increase in cooling time, decrease in incidence of ventricular fibrillation or ease of resuscitation occurred when fluids containing dextran, glycine, dextrose and fat emulsion in saline were administered during the cooling period in dogs. It is postulated that this effect may be due to buildup of glycogen reserves in the myocardium and reserves of phosphate bond energy. The prolongation of cooling time and rapid rewarming occur when nutrient solutions are supplied and appear not to be attributable to the glycine alone. (Caranna, L., Telmosse, F., and Swan, H.: *Effect of Intravenous Nutrient Solution on Ventricular Fibrillation in Hypothermic Dog*, *A. M. A. Arch. of Surg.* 76: 394 (Mar.) 1953.)

RENAL HYPOTHERMIA After experimental removal of the right kidney in dogs, the blood supply to the left kidney was occluded and that kidney was cooled. In the control group with no cooling the mortality was 100 per cent. Percentage of

survival in the animals with kidneys cooled to 20-25 C. was 30 per cent, and those cooled to 10-15 C. was 80 per cent, and those cooled to 0-5 C. was 100 per cent. In the dog regional renal hypothermia protects against lethal ischemia. (Stueber, P., and others: *Regional Renal Hypothermia*, *Surgery* 44: 77 (July) 1958.)

MEDICAL HYPOTHERMIA In a study involving 26 critically ill patients, 13 were cooled from 40 C. or above to 35-36 C. while the control group of 13 were not cooled. There were 3 survivors and 8 improved patients in the cooled group. There were no survivors and 3 improved patients in the group that was not cooled. Neurosurgical patients seemed to benefit most from the cooling. (Reeves, M., and Lewis, F.: *Total Body Cooling in Critically Ill Febrile Patients*, *Surgery* 44: 84 (July) 1958.)

ATROPINE-LIKE DRUGS After graded subcutaneous doses of atropine, methanthelinium (Banthine), proantheline (Pro-Banthine), oxyphenonium (Antrenyl) and hyoscine in humans observations were made on heart rate, salivary secretion, pupil size, near point of accommodation, micturition, and palmar sweating. Small doses which depressed salivary secretion and palmar sweating did not necessarily accelerate the heart or slow micturition. Atropine and hyoscine, tertiary amines, had a greater effect than the other drugs, quaternary amines, on the iris and ciliary muscle compared with the effects on the other end organs studied as the dose of a drug was increased, the peak effect on the heart rate and salivary secretion tended to occur sooner, but the peak effect on the iris and ciliary muscle always occurred later. (Herzheimer, A.: *Comparison of Some Atropine-Like Drugs in Man, with Particular Reference to Their End Organ Specificity*, *Brit. J. Pharmacol.* 13: 151 (June) 1958.)

ANTI-HISTAMINES The objective of an extensive series of experiments was to measure the antihistaminic, anticholinergic and local anesthetic potencies of 17 drugs in current clinical use. On the basis of the potency values obtained the drugs were compared in regard to their selectivities.