

calling the details of the management of cardiac arrest in proper order: A (Airway), B (Breathing), C (Circulation), D (Diagnosis of underlying cause), E (Epinephrine), F (Fibrillation), G (Glucose intravenously), pH (Sodium bicarbonate), I (Intensive care). (Minuck, M.: *Chemotherapy of Cardiac Arrest*, *Canad. Med. Ass. J.* 92: 16 (Jan. 2) 1965.)

RENAL BLOOD FLOW Renal function tests were carried out during operations for thyrotoxic goiter in 105 patients. The types of anesthesia used were: local in 36 patients, potentiated local in 30, superficial endotracheal ether-oxygen with muscle relaxants and manually controlled breathing in 17, and the same with automatic control of respiration in 22. Kidney function was found to be significantly impaired under local and potentiated local anesthesia, but only slightly lowered under endotracheal oxygen-ether anesthesia with manually controlled breathing. Impairment of function is due to a spasm of the renal arterioles, caused by an increased activity of the adreno-sympathetic system. Manually controlled ventilation does not insure adequate arterialization of kidney cells. Automatically controlled ventilation does safeguard it to the extent that renal function is even slightly improved during operation. (Pekarskii, D. S.: *Renal Blood Supply During Operations Under Various Types of Anaesthesia* (Russian), *Klin. Khir.* 8: 29 (1964.)

CEREBRAL BLOOD FLOW Effect of carbon dioxide on cerebral blood flow was studied in ten patients with unilateral internal carotid obstruction. Inhalation of 5 per cent carbon dioxide increased the cerebral blood flow significantly from 28.8 to 40.5 ml./100 g. of brain per minute (a 40 per cent increase). A significant correlation was established between cerebral blood flow, neurological defects, and angiographic cross-filling. Increased cerebrovascular resistance in carotid obstruction is attributed to increased cerebrovascular tone, which tends to preserve pressure gradients all along the cerebral arterial tree in the presence of a decreased vol-

ume of inflow. Carbon dioxide inhalation increases cerebral blood flow by virtue of reduction of cerebrovascular resistance, thereby minimizing sludging and subsequent thrombosis in areas of reduced pressure gradients within the cerebral arterial tree and preventing further cellular damage in areas of marginal blood supply. Intermittent inhalation of 5 per cent carbon dioxide in air is recommended as an adjunct to vascular surgery in treatment of unilateral carotid obstructions. (Hegcdus, S. A., and Shackelford, R. T.: *Carbon Dioxide and Obstructed Cerebral Blood Flow*, *J.A.M.A.* 191: 279 (Jan. 25) 1965.)

CEREBRAL BLOOD FLOW Cerebral blood flow measurements in 11 healthy subjects by means of the Kety-Schmidt inert gas method using Krypton⁸⁵, indicates a small overestimation of about 10 per cent in subjects with normal flow rates, somewhat greater in subjects with subnormal flow rates. The error apparently is due to incomplete equilibrium between brain tissue and mixed venous blood in the 10 minute saturation period practised. Although the error is small enough to be ignored in the practical application of this useful method, it may be counteracted by prolonging the saturation time to 15-20 minutes or by extrapolation of the flow curve to infinity. (Lassen, N. A., and Klee, A.: *Cerebral Blood Flow Determined by Saturation and Desaturation with Krypton⁸⁵*. An Evaluation of the Validity of the Inert Gas Method of Kety and Schmidt, *Circ. Res.* 16: 26 (Jan.) 1965.)

AMYGDALA AND HEART RATE In chronically prepared unanesthetized monkeys, bradycardia and tachycardia followed electrical stimulation within the amygdaloid region. The heart rate centers are independently represented and have separate descending highly polysynaptic projection pathways to the brain stem. (Reis, D. J., and Oliphant, M. C.: *Bradycardia and Tachycardia Following Electrical Stimulation of the Amygdaloid Region in Monkey*, *J. Neurophysiol.* 27: 892 (Sep.) 1964.)