

tential. Procaine and quinidine oppose the action of potassium in that they increase the duration of both the resting potential and depolarization. (Overman, R. R.: *Physiological Effect of Ions*, *Ann. New York Acad. Sc.* 72: 105 (Feb. 6) 1959.)

ATRIAL PRESSURE The effects of respiration on the effective right and left atrial pressure have been studied in anesthetized dogs without opening the chest. In the right atrium the pressure at the "V" point increases with normal inspiration and decreases with positive pressure inflation. ("V" point—just before the second heart sound artefact.) At the "V" point in the left atrium, the effective pressure either remained steady or fell at the beginning of inspiration; then the pressure rose to a peak during expiration. With positive pressure, there were variable changes at the left atrial "V" point. (Coleridge, J. C. G., and Linden, R. J.: *Variations with Respiration in Effective Right and Left Atrial Pressures in Dog*, *J. Physiol.* 145: 482 (March) 1959.)

CARDIAC HYPOXIA Studies were made on 33 open-chest, bilaterally vagotomized dogs under barbiturate anesthesia. In the dog with a normal sympatho-adrenal system, hypoxia produces marked increases in heart contractile force and blood pressure. Reoxygenation rapidly brings rebound increase in force and blood pressure. Experiments in animals subjected to bilateral adrenalectomy, or thoracic sympathectomy, or total preganglionic sympathetic block indicated that the response to acute oxygen want is due to stimulation of the sympathetic nervous system. Responses to reoxygenation are dependent on both the adrenal medullae and the sympathetic nerves. (Woods, E. F., and Richardson, J. A.: *Effects of Acute Anoxia on Cardiac Contractility*, *Am. J. Physiol.* 196: 203 (Jan.) 1959.)

VENA CAVAL OCCLUSION Occlusion or partial occlusion of the superior vena cava resulted in depression of cortical electrical activity in five patients. Release of the obstruction caused a return to patterns recorded prior to occlusion. One patient in whom partial occlusion was maintained showed an initial depression of cortical electrical activity with re-

turn to pre-occlusion pattern. It was felt that the cortical depression resulted from the increased cerebral venous pressure. (Brechner, V. L., and others: *Electroencephalographic Effect of Compression of Superior Vena Cava During Thoracotomy*, *J. Thoracic Surg.* 37: 352 (March) 1959.)

CARDIAC ARREST In a review of 79 cases of cardiac arrest over a period of six years, there was an incidence of cardiac arrest in patients having noncardiac operations of 1:957, with a complete recovery rate of 31.4 per cent. The principle causes of arrest were inadequate gaseous exchange and hypotensive states. Muscle relaxants were used as supplements in only 11 cases. The first decade of life had the highest instance of cardiac arrest, accounting for 25.3 per cent of the cases. Prompt institution of cardiac massage is emphasized; one minute can mean the difference between normal recovery and death. (Schull, L. G.: *Review of Cases of Cardiac Arrest at Vanderbilt University Hospital and Thayer Veterans Hospital*, *South. M. J.* 52: 143 (Feb.) 1959.)

CARDIAC RESUSCITATION Present endeavors in the field of resuscitation are toward improving methods so that cardiac arrest may be successfully and effectually treated without open cardiac massage. In a series of dog experiments, it has been found that external defibrillation can be successfully performed within 50 seconds after arrest. In similar experiments with periods of two minutes or longer, the supplementary procedure of intra-arterial perfusion of glucose and adrenalin restores the heart beat. (Hosler, R.: *Historical Notes on Cardiorespiratory Resuscitation*, *Am. J. Cardiology* 3: 416 (March) 1959.)

CORONARY BLOOD FLOW Vagotomy or atropine increases coronary blood flow and myocardial oxygen consumption but decreases ventricular efficiency. Sympathectomy has exactly opposite effects. Increasing oxygen content of the arterial blood actually decreases coronary blood flow. (Scott, J. C., and Balourdas, T. A.: *Analysis of Coronary Flow and Related Factors Following Vagotomy, Atropine*