

not necessarily precede ventricular pacemaker activity. The threshold dose of adrenaline is not affected by maintaining the atrial rate electrically. The vagal effect on conduction through the A-V node is of sufficient magnitude that artificial maintenance of atrial rate does not change the threshold dose of adrenaline necessary to induce cardiac arrhythmia. (*Dresel, P. E.: Sites of Vagal Action in Adrenaline-Induced Cardiac Arrhythmias, Canad. J. Biochem. 40: 1655 (Dec.) 1962.*)

**ARRHYTHMIAS** Electrical stimulation of the hippocampus and amygdala in the cat led to electrocardiographic abnormalities consisting of inversion and increased amplitude of the T wave, elevation of the ST segment and prolongation of the Q-T interval. At first, changes were transient and associated only with the stimulus, but repeated stimulation eventually led to persistent changes which reverted to normal after transection of the mid-cervical spinal cord. The peripheral mechanism in this phenomenon is not certain but it is speculated that the central neural discharges are carried by the sympathetics to set up regions of altered reactivity of the myocardium. (*Porter, R. W., Kamikawa, K., and Greenhoot, J. H.: Persistent Electrocardiographic Abnormalities Experimentally Induced by Stimulation of the Brain, Amer. Heart J. 64: 815 (Dec.) 1962.*)

**CARDIAC ARRHYTHMIA** Daily administration of reserpine to a cat for one to four weeks produces an increase in sensitivity of its heart to catecholamine-induced arrhythmias. Such sensitivity increases progressively with the increased duration of reserpine administration. (*Fleming, W. W.: Supersensitivity of the Cat Heart to Catecholamine-Induced Arrhythmias Following Reserpine Pretreatment, Proc. Soc. Exp. Biol. Med. 111: 484 (Nov.) 1962.*)

**BLOOD PRESSURE RECORDING** Using a single-strand mercury-filled rubber strain gauge, a small transistorized direct-current amplifier, a blood pressure cuff and manometer and a standard commercial single channel ECG recorder, the principle of limb plethysmography may be applied to patients to record

accurate systolic blood pressure and peripheral blood flow. The principle involves occluding the arterial inflow to the limb by inflation of the blood pressure cuff proximal to the circumferentially applied strain gauge, then releasing the pressure gradually until arterial blood begins to flow into the limb. At this point the increase in limb size stretches the strain gauge and the resultant change in electrical impedance is amplified and recorded on the ECG, thereby allowing comparison with the concomitant cuff pressure. Values obtained were correlated with direct intra-arterial pressures in both brachial and femoral arteries. They were found to be within an average of  $-2.1$  mm. of mercury of the intra-brachial pressures (range  $-16$  to  $+10$ ) and  $+2.1$  mm. of mercury of the intrafemoral pressures (range  $-5$  to  $+16$ ). The technique has been particularly useful in studying infants and shocked patients with marked vasoconstriction, both of which categories present difficulties with blood pressure determinations. (*Mason, D. T., and Braunwald, E.: Simplified Plethysmographic System for the Measurement of Systemic Arterial Pressure and Peripheral Blood Flow, Amer. Heart J. 64: 796 (Dec.) 1962.*)

**PRESSURE PULSE** Studies in 32 anesthetized dogs utilizing high fidelity pulse pressure recording apparatus in conjunction with micro-needles inserted into mesenteric and intestinal arteries down to those measuring  $200 \mu$  internal diameter, indicated that arteries of this diameter and larger have little to do with alterations in peripheral resistance, functioning primarily as transport vessels. The principal changes in pressure curves recorded from aorta to  $200 \mu$  diameter arteries is a damping effect, greater with respect to systolic (17 per cent drop) than diastolic (12 per cent drop) pressure. Norepinephrine and angiotensin lessened this damping effect, while hexamethonium and hemorrhage enhanced it. (*Sugiura, T., and Freis, E. D.: Pressure Pulse in Small Arteries, Circulat. Res. 11: 838 (Nov.) 1962.*)

**REFLEX HYPOTENSION** Surgical manipulation in the abdomen in man under light ether anesthesia may cause sudden fall in