

S.: Treatment of Cardiac Arrhythmias, Geriatrics 16: 1 (Jan.) 1961.

PRESSOR AMINE MYOCARDITIS Myocardial lesions have been produced experimentally with epinephrine and norepinephrine. Alterations are primarily degenerative, but may be followed by frank inflammation. Myocarditis has also been observed in patients with pheochromocytoma; this is attributed to the norepinephrine secreted by these tumors. Clinical evidence of myocarditis may be shown in the form of systolic murmur, gallop rhythm, and tachycardia. Death may result from acute myocardial failure. (*Kline, I. K.: Myocardial Alterations Associated with Pheochromocytomas, Amer. J. Path. 38: 539 (May) 1961.*)

MYOCARDIAL FUNCTION Ventricular responses to increased filling pressure produced by tilting into the head-down position were studied in vagotomized dogs treated with gallamine. Before administration of a ganglionic blocking agent there were only slight changes in heart rate, cardiac output, stroke volume and external work of the ventricles in response to rise in pressure. After cardiac sympathetic tone was reduced by the administration of a ganglionic blocking drug, heart rate, cardiac output, stroke volume and ventricular work fell. Increasing atrial pressure resulted in significant increases in output and work, but the levels present before the ganglionic blocking agent were not achieved. Restoration of heart rate by electrical stimulation of the atrium with the animals in the head-down position caused no further increase in cardiac work or output. The denervated heart responds more clearly to an increase in filling pressure. In this respect its performance resembles that of the heart-lung preparation. (*Eckstein, J. W., and Horsley, A. W.: The Effects of Reduced Cardiac Sympathetic Tone on Myocardial Function, J. Clin. Invest. 40: 555 (Mar.) 1961.*)

CENTRAL BLOOD VOLUME Central blood volume was measured at rest, standing and during exercise by means of a dye dilution technique. Mean values for central blood volume were 1,034 ml. per square meter at rest, 722 ml. per square meter while standing,

and 1,652 ml. per square meter during walking at a rate of 3.5 miles per hour. The central blood volume was also increased during the performance of leg exercise in the supine position. Such exercise is associated with an increased flow of blood to the lower limbs. The increase in central blood volume during exercise is partly or wholly caused by an increase in its systemic "arterial" component. Failure to appreciate the significance of such hemodynamic changes during exercise, change of posture and general anesthesia, has led in the past to unwarranted conclusions about changes in pulmonary blood volume, the reservoir functions of the lungs, and the interdependence of pulmonary blood volume and cardiac output. It is questionable that any valid information about the pulmonary blood volume can be obtained from measurement of the central blood volume when a peripheral sampling site is used. (*Marshall, R. J., and Shepherd, J. T.: Interpretation of Changes in Central Blood Volume and Slope Volume During Exercises in Man, J. Clin. Invest. 40: 375 (Feb.) 1961.*)

BLOOD VOLUME A study of 28 elderly surgical patients indicated that there is no predictable change preoperatively in plasma or blood volume with advancing age. Postoperative measurements showed that during the first day or two after operation there is a decrease in both plasma and cell volumes. The decrease in cell volume is usually slightly greater than the concomitant decrease in plasma volume, so that at this stage there is usually mild hemodilution, with a decreased total blood volume. Plasma volume increases from about the second to sixth postoperative day, while cell volume continues to decrease for four to five days after operation. At this stage a moderate hemodilution is observed, combined with a normal or somewhat increased total blood volume. (*Semple, R. E., and others: Plasma and Blood Volume in Elderly Patients after Surgery, Canad. Med. Ass. J. 84: 772 (Apr. 8) 1961.*)

BLOOD VOLUME I^{131} -tagged serum albumin or Cr^{51} -tagged red cells are utilized with a new semiautomatic apparatus for single or serial determinations of blood volume. Ap-