

to a heart-lung machine to measure oxygen tension and regulate the mixture of air oxygen and carbon dioxide to which the blood in the machine was exposed. The polarograph measures oxygen tension, which provides a better estimate of high oxygen values than does the measurement of oxygen content or of oxygen saturation. (Ito, Iwao, Kolff, W. J., and Effler, D. B.: *Prevention of Overoxygenation During Treatment with Heart-Lung Machine in Cardiac Operations*, *Cleveland Clin. Quart.* 25: 9 (Jan.) 1959.)

**BLOOD OXYGENATION IN ANEMIA** Patients with sickle cell anemia show a reduced arterial oxygen saturation, low arterial oxygen tension, increased alveolar-arterial oxygen tension gradients and low arterial carbon dioxide tensions. Breathing 16.5 per cent oxygen reduced the increased alveolar-arterial oxygen tension gradients in these patients to normal. The increased alveolar-arterial oxygen tension gradients and an abnormal oxyhemoglobin dissociation curve cause the low arterial oxygen saturation. (Fowler, N. O., Smith, O., and Greenfield, J. D.: *Arterial Blood Oxygenation in Sickle Cell Anemia*, *Am. J. M. Sc.* 234: 449 (Oct.) 1957.)

**FIBRINOLYSIS** The fibrinolytic activity of plasma from 110 thoracic surgery patients and 40 general surgery patients was investigated before, during, and after surgery. A slight increase in postoperative lysis was noted with the general surgery patients, while a significant increase was found in the thoracic surgery patients. (Lincoln, A. F., Moorman, J. A., and Schultz, R. L.: *Fibrinolysis Following Thoracic Surgery*, *Surg., Gynec. & Obst.* 105: 541 (Nov.) 1957.)

**CARDIAC OUTPUT** The direction of cardiac output change with varying conditions can be gauged accurately in individual subjects from changes in pulse pressure. (Brotmacher, L.: *Evaluation of Derivation of Cardiac Output from Blood Pressure Measurements*, *Circulation Res.* 5: 559 (Nov.) 1957.)

**BALLISTO-CARDIOGRAPHY** Progressive deterioration of the ballistocardiogram of the anesthetized dog reflects anes-

thetic induced cardiocirculatory depression resulting in extra-thoracic blood pooling plus decreased venous return, cardiac output and arterial pressure. The improvement in the b.e.g. when abdominal compression is applied suggests that this procedure improves circulatory function by diverting splanchnic bed pooling into general circulation enhancing venous return and cardiac output. (Scarborough, W. R.: *Some Circulatory Effects of M. S. Barbiturate Anesthesia, Artificial Respiration and Abdominal Compression Based on B.C.G. Observations in Dogs*, *Am. Heart J.* 54: 651 (Nov.) 1957.)

**VASCULAR REFLEXES** When the legs of a recumbent subject are passively raised, the bloodflow in the forearms increases owing to reflex dilatation of skeletal muscle vessels. This dilatation is probably brought about by release of vasoconstrictor tone. Receptors concerned in the reflex dilatation lie in a low pressure area of the intrathoracic vascular bed. (Roddie, R. G., Shepherd, J. T., and Whelan, R. F.: *Reflex Changes in Vasoconstrictor Tone in Human Skeletal Muscle in Response to Stimulation of Receptors in Low-pressure Area of Intrathoracic Vascular Bed*, *J. Physiol.* 139: 369 (Dec. 31) 1957.)

**VASOMOTION** Utilizing cutaneous nerve blocks and blood flow measurements, it is shown that blood flow in the skin of the human forearm is regulated mainly by a vasodilator mechanism and not, as in the skin of the hands and feet, mainly by the release of vasoconstrictor tone. (Edholm, O. G., Fox, R. H., and Macpherson, R. K.: *Vasomotor Control of Cutaneous Blood Vessels in Human Forearm*, *J. Physiol.* 139: 455 (Dec. 31) 1957.)

**CAROTID REFLEX** Compression of one or both common carotid arteries in man caused tachycardia, stimulation of respiration and an increase in brachial artery pressure. Experimental evidence shows that this pressor response is probably not due to increased vascular resistance in the limbs. Conjecture points either to increased cardiac output or increased peripheral resistance in other vascular beds as a cause of the pressor reaction. (Roddie,