tions of Atropine on Cardiac Rhythm, Am. J. M. Sc. 237: 304 (March) 1959.)

DIGITALIZATION Eight human volunteers were studied during rest and exercise before and after intravenous administrations of 1 to 1.2 mg. of digoxin or 1.6 to 1.8 mg. of acetyl strophanthidin. At rest there was a decrease of cardiac output, pulse rate, and stroke volume, and an average rise of blood pressure from 129/73 mm. Hg to 165/86 mm. Hg following digitalization. Similar changes occurred during exercise except that there was no change in blood pressure after digitalization. It was concluded that any augmentation of myocardial contractility resulting from digitalization in resting or exercising normal subjects is overshadowed by the peripheral action of the drug. *(Williams, N. H., Jr., Zohman, L. R., and Ratner, A. C.: Hemodynamic Effects of Cardiac Glycosides on Normal Human Subjects During Rest and Exercise, J. Appl. Physiol. 13: 417 (Nov.) 1958.)*

ISOPROTERENOL Despite mild hyperventilation, intrapleural pressure changes were not significant during intravenous infusion of isoproterenol. Atrial pressure fell regularly as did transmural pressure. Fall in transmural pressure was caused by the fall in atrial pressure because intrapleural pressure was not changed appreciably. Fall in atrial pressure is probably not a ventilatory effect. Forearm venous pressure fell but venous constriction occurred regularly. The large shift of blood from the forearm which occurred was caused primarily by the venous constriction and not by the fall in intraluminal pressure. *(Eckstein, J. W., and Hamilton, W. K.: Effects of Isoproterenol on Peripheral Venous Tone and Transmural Right Atrial Pressure in Man, J. Clin. Invest. 38: 342 (Feb.) 1959.)*

STEROIDS Testosterone, cortisone, desoxycorticosterone, estrone, and progesterone act as haptens when they are conjugated with bovine serum albumin. Antibodies with steroid specificity are formed in rabbits with each of the five steroid-hormone-protein conjugates. *(Beiser, S. B., and others: Antigenicity of Steroid-Protein Conjugates, Science 129: 564 (Feb.) 1959.)*

ASTHMA Chronic bronchial asthma produces a marked increase in the mean airway resistance during periods of acute and chronic respiratory distress. The inspiratory airway resistance may be almost as high as the expiratory resistance. Following therapy, the majority of patients show a greater improvement in the inspiratory resistance than in the expiratory resistance. The so-called "check-value" mechanism of expiration, described in patients with emphysema, may be operative in many patients with bronchial asthma during acute attacks. The compliance or the elastic resistance of the lungs appears to decrease as nonelastic (airway) resistance increases. There is a marked increase in the work of breathing in patients during attacks of bronchial asthma. Such increase is due almost entirely to overcoming resistance. Therapy directed toward decreasing elevated airway resistance is rational and justified. *(Wells, R. E., Jr.: Mechanics of Respiration in Bronchial Asthma, Am. J. Med. 26: 384 (March) 1959.)*

MYASTHENIA Plasma and serum samples from 22 patients with myasthenia gravis were bioassayed by the frog sciatic nerve-sartorius muscle preparation *in vitro*. As compared to the results on controls, 5 of these samples caused a reduction of maximum tetanus tension and 13 produced an appreciable augmentation of the twitch or end tetanus tension. Discussion is presented concerning the possibility of a circulating neuromuscular blocking agent in myasthenia gravis, a method of bioassay and possible properties of such a blocking agent. *(Nastuk, W. A., and others: Search for Neuromuscular Blocking Agent in Blood of Patients with Myasthenia Gravis, Am. J. Med. 26: 394 (March) 1959.)*

MYASTHENIA GRAVIS The defect in myasthenia gravis is probably a defect in muscular transmission, probably due to some alteration in acetylcholine. It is similar in many ways to the block produced by *d*-tubocurarine in normal subjects. While decamethonium and succinylcholine are better tolerated than other muscle relaxants even these drugs may aggravate weakness and should be avoided during anesthesia of myasthenia gravis patients. Procaine and its derivatives have neuromuscular

blocking action and should be administered with caution. (*Grob, D.: Myasthenia Gravis, J. Chron. Dis., 8: 536 (Oct.) 1958.*)

SHOULDER-ARM SYNDROME For successful treatment of this disorder, four basic concepts should be recognized. (1) The disorder is a psychosomatic disease with an anatomic or physiological component and a psychological or psychiatric component, both of which must be treated. (2) An accurate diagnosis must be made before treatment is started. The possibility that the patient has an incompletely reduced dislocation, ununited fracture, or neuroma must be excluded. (3) The physiological component should be treated by functional interruption of the sympathetic nerves to the extremity, thus breaking the vicious cycle of increased sympathetic activity. Either the injection of a short-acting anesthetic agent about the stellate ganglion or surgical resection of the upper thoracic sympathetic trunk on the same side as the disability is effective provided the nerve block is sufficiently complete in degree and duration. Physical therapy may be comfortably performed following the block and is a valuable adjunct. (4) The psychological component of the disease requires that the physician exhibit genuine interest, sympathy, and encouragement toward the patient as a person. Occasionally the special abilities of a psychiatrist are absolutely necessary for the difficult patient. (*Pender, J. W.: Basic Concepts About Shoulder-Arm Syndrome, J. A. M. A. 169: 795 (Feb. 21) 1959.*)

PROPHYLACTIC TRACHEOSTOMY The objectives are to allow maximum utilization of pulmonary reserve and to prevent postoperative pulmonary complications. Tracheostomy is done in the operating room immediately after completing the primary procedure or during the first few postoperative hours. Scrupulous care of the tracheostomy is essential and includes the following points: (1) Suction must be applied at regular intervals, since exclusion of the larynx from the airway deprives the patient of his ability to cough effectively. (2) The tip of the suction catheter should be allowed to pass beyond the inner extent of the cannula, so that suction is applied deeply but with frequent rest intervals. (3) Oxygen furnished to a plastic tracheostomy cup may be used for most patients, but compressed air is employed for those with severe emphysema. Humidification may be obtained by passage of gas through a wetting agent (Alevaire). (4) Aseptic precautions must be employed, for severe tracheobronchitis can be precipitated by careless handling of suction catheters. (*Starzl, T. E., Meyer, W. H., and Farrell, J. J.: Poor Risk General Surgical Patients, J. A. M. A. 169: 691 (Feb. 14) 1959.*)

PSYCHOGENIC FEVER In a study of all patients admitted for the first time to North Carolina Memorial Hospital in 1956, it was found that the incidence of an initial temperature elevation of 0.8 degrees F. or greater, was found to occur in 3.6 per cent of all first admissions. The incidence of an initial temperature elevation among all patients without discernible reason for fever was 27.2 per cent. The highest incidence of psychogenic fever was in psychiatric patients. The greatest temperature elevation found was 2.7 degrees F. (*White, K. L., and Long, W. N., Jr.: Incidence of Psychogenic Fever in University Hospital, J. Chron. Dis. 8: 567 (Nov.) 1958.*)

POSTOPERATIVE THROMBOEMBOLISM Disintegration of an increased number of megakaryocytes in the lung capillaries may logically produce a sudden, marked increase in circulating platelets and hence a transient blood hypercoagulability. It is possible that a stressful situation such as a surgical operation produces hypercoagulability through the above mechanism and that thus the stage is set for such thromboembolic complications as pulmonary embolism and coronary, cerebral and other peripheral vascular thromboses. (*Sharnoff, J. G.: Increased Pulmonary Megakaryocytes—Probable Role in Postoperative Thromboembolism, J. A. M. A. 169: 688 (Feb. 14) 1959.*)