

may cause the detrimental effects of late shock. (Berk, J. L., and others: *The Effect of Epinephrine on Arteriovenous Shunts in the Pathogenesis of Shock*, *Surg. Gynec. Obstet.* 124: 347 (Feb.) 1967.)

### Respiration

**HYPERPNEA OF EXERCISE** Previous work has suggested that in some stressful situations chemoreceptor function may be influenced by activity of the sympathetic nervous system. In the present study, the magnitude of hyperpnea caused by exercise as well as associated changes in  $\text{Pa}_{\text{O}_2}$ ,  $\text{Pa}_{\text{CO}_2}$  and pH were evaluated before and after blockade of the sympathetic innervation of the carotid body by bilateral stellate ganglionic block. Results of the study indicated that during exercise, the central nervous system does not operate through the sympathetic innervation of the carotid chemoreceptors or sensitize them to their usual stimuli of hypoxia and hydrogen ion concentration. (Eisele, J. H., Ritchie, B. C., and Severinghaus, J. W.: *Effect of Stellate Ganglion Blockade on the Hyperpnea of Exercise*, *J. Appl. Physiol.* 33: 966 (May) 1967.)

**RESPIRATORY DISTRESS** Idiopathic respiratory distress syndrome (IRDS) mothers have significantly lower levels of gamma-globulins than control groups, although they do not differ significantly with respect to the concentrations of total serum protein and serum albumin. The possible explanations are: (1) pregnancy-induced defect in synthesis of gamma-globulins, resulting in lowered maternal serum concentrations and diminished placental transfer; (2) fetal catabolism of maternal globulins; and (3) an immune reaction, with maternal gamma-globulins as either an antibody or an antigen. (Hardie, G., and Kench, J. E.: *Maternal Serum Proteins in Idiopathic Respiratory Distress Syndrome of the Newborn*, *Lancet* 1: 809 (April) 1966.)

**SMOKING** Of 133 college seniors, those who smoked had a significantly greater incidence of cough, phlegm, breathlessness, wheezing and colds. All five students with hemoptysis and four with histories of peptic ulcer

were smokers. Though exceptions occurred, a dose-response trend was demonstrated between lifetime packs smoked and decreased expiratory flow rates. Surprisingly little smoking was necessary to produce early functional changes of a type compatible with early non-specific respiratory disease. The degree to which students inhaled was not determined. (Peters, J. M., and others: *Smoking, Pulmonary Function, and Respiratory Symptoms in a College-age Group*, *Amer. Rev. Resp. Dis.* 95: 774 (May) 1967.)

**SMOKING** From a retrospective study of 1,623 male and 404 female college graduates based on their visits to the student health service, it was found that the increase in incidence and severity of respiratory disease was highly significant in smokers as compared with non-smokers. This relationship held for years smoked and lifetime packs smoked. (Peters, J. M., and others: *Smoking and Morbidity in a College-age Group*, *Amer. Rev. Resp. Dis.* 95: 783 (May) 1967.)

**SMOKE INHALATION** As many as 1,200 deaths per year in the United States are attributed to smoke inhalation, yet the subject has received little attention in the medical literature. Of particular importance is recognition of the six- to 48-hour latent period which may ensue before complications of acute bronchial obstruction, pneumonia, pulmonary edema, and eventual cardiopulmonary failure develop. Management may require tracheostomy, prolonged intermittent positive-pressure breathing with appropriate concentrations of oxygen and high humidity, and, when indicated, administration of systemic antibiotics and steroids. (Webster, J. R., and others: *Recognition and Management of Smoke Inhalation*, *J.A.M.A.* 201: 287 (July) 1967.)

**EXPERIMENTAL EMPHYSEMA** Rabbits continuously exposed to an atmosphere of 8 to 12 parts per million of nitrogen dioxide for three to four months were found to have lung changes which did not regress and were compatible with a diagnosis of emphysema. (Haydon, G. B., and others: *Nitrogen Dioxide-Induced Emphysema in Rabbits*, *Amer. Rev. Resp. Dis.* 95: 797 (May) 1967.)