

surgery only when there is a large area of lung parenchyma compressed by hypertensive bullae. The degree of associated diffuse pulmonary disease must also be evaluated since this is not improved by surgery. (Viola, A. R., and others: *Physiologic and Clinical Aspects of Pulmonary Bullous Disease*, *Amer. Rev. Resp. Dis.* 94: 574 (Oct.) 1966.)

RESPIRATION IN PARKINSONISM In 23 subjects with parkinsonism an obstructive respiratory dysfunction was present and correlated in severity with clinical disability. The defect was shown by reduction in the maximal midtidal flows, increase in the total respiratory resistance, unequal distribution of ventilation, and an increase in the functional residual capacity and the residual volume expressed as percentage to total lung capacity. (Neu, H. C., and others: *Obstructive Respiratory Dysfunction in Parkinsonian Patients*, *Amer. Rev. Resp. Dis.* 95: 33 (Jan.) 1967.)

RESPIRATORS In 8 seriously ill non-anesthetized patients presenting problems in maintenance of blood pressure, the effect of negative pressure during expiration on cardiac output was determined, ventilation being maintained constant. Peak negative values of from -4 to -15 cm. of water were employed. In only one patient was cardiac output increased during use of negative pressure compared to positive pressure alone. The use of the negative phase is less important than avoiding over-ventilation and excess increased airway pressure, limitation of inspiratory time to 1.5 seconds or less, maintenance of blood volume and use of vasopressor drugs. The use of a negative phase may be indicated in severe shock and its effects monitored by measurement of central venous pressure. Negative pressure used with a pressure limited ventilator may lead to reduced tidal volume due to gas trapping or increased tidal volume due to reduction in end-expiratory lung volume.

(Auchincloss, J. H., and others: *An Evaluation of the Negative Phase of a Volume-limited Ventilation*, *Amer. Rev. Resp. Dis.* 95: 66 (Jan.) 1967.)

POSITIVE PRESSURE HAZARD Four new cases are reported of damage to patients by positive pressure respiration. One case occurred during general anesthesia; one during resuscitation from cardiac arrest; one during infant resuscitation, and one during respirator use via a tracheotomy on the third postoperative day. Autopsy findings included tension pneumothorax and subcutaneous and visceral emphysema. Sixty-seven other cases are cited, with the hazards attributed to rupture of alveoli, emphysematous blebs and pleura. Air is forced into the pleural cavity or into the mediastinum, retroperitoneal space or subcutaneous tissue. Pressures over 25 cm. of water are progressively more dangerous. Any of the following signs may develop: increasing resistance to pulmonary inflation; tachypnea, wheezing, reduced breath sounds, asymmetry of the chest, crackling synchronous with the heart beat, subcutaneous emphysema or deterioration of vital signs. (Nemmhaus, H. P., Javid, H., and Julian, O. C.: *Alveolar and Pleural Rupture, Hazards of Positive Pressure Respiration*, *Arch. Surg.* 94: 136 (Jan.) 1967.)

ENDOBRONCHIAL INFUSION A patient in severe shock was given 500 ml. of a plasma expander presumably via the subclavian vein. The infusion needle had not been properly positioned and infusion into the bronchial tree resulted. Radiologic examination showed complete opacity of the right lung. The patient exhibited marked cyanosis. Repeated tracheal aspiration was necessary and recovery was complete after five days. (Eisterer, H., and Marsoner, F.: *A Rare Complication of Infusion in the Subclavian Vein*, *Der Anaesthetist* 15: 395 (Dec.) 1966.)