

laboratory estimations of arterial blood and pH and  $P_{CO_2}$ . During drug-induced paralysis, it may be desirable to sedate a patient on IPPR, but only the lightest sedation, and sometimes none at all is required to maintain unconsciousness and amnesia. The weaning of a patient from respiratory care may be prolonged; the transition from tracheostomy tube to normal breathing being made with the intermediate use of a fenestrated metal tube to reintroduce gradually the natural deadspace. (Walsh, R. S.: *Management of Patients in a Respiratory Unit, Proc. Roy. Soc. Med.* 54: 799 (Sept.) 1961.)

**INFANT RESUSCITATOR** A Kreiselman apparatus for resuscitation of the newborn infant was found effective in initiating respiration in some depressed infants when the pressure relief indicator beside the water column was set to a limit of ten millimeters of mercury. A check was made of the pressure flow calibrations of the resuscitators. While the resuscitator was theoretically set at a predetermined pressure limit of 13.6 centimeters of water, the maximum pressures actually varied from 13.6 to 52 centimeters of water. The higher pressures thus applied account for the inflation of the unexpanded infant lung. Emphasis is directed toward limiting the use of high pressures for periods of less than two minutes, in order to avoid rupture of the aerated lung. (Hustead, R. F., and Avery, M. E.: *Observations on Mass Pressure Achieved With the Kreiselman Infant Resuscitator, New Engl. J. Med.*, 265: 939, (Nov. 9) 1961:).

**PULMONARY EMBOLISM** Experimental pulmonary embolism was studied in sheep following the intravenous administration of graded amounts of barium sulfate emulsion. Ventilation, lung mechanics and circulation were measured. The effect of various neuroplegic procedures, oxygen breathing, the administration of antihistaminic and antiserotonin drugs, and continuous epinephrine and isoproterenol infusions was assessed. In addition to hyperventilation, arterial hypoxemia, pulmonary hypertension and bronchoconstriction, a gross fall in lung compliance was shown to occur, unrelated to pulmonary edema. All

but one of the procedures were ineffective in altering the onset or severity of these changes. The effect of smaller doses of embolic material was completely prevented by the administration of isoproterenol. It is concluded that postembolic pulmonary hypertension and compliance-fall after a small dose of embolic material are predominantly functional and probably caused by the release of an unknown substance as a response to embolism. (Halmagyi, D. F. J., and Colebatch, H. J.: *Cardiorespiratory Effects of Experimental Lung Embolism, J. Clin. Invest.* 40: 1785 (Sept.) 1961.)

**PULMONARY EMBOLISM** Experimental pulmonary embolization confined to one lung or one lobe of a lung was produced in dogs and the distribution of the embolizing glass beads was verified at autopsy. In all experiments respiratory rate increased and tidal volume decreased following embolization. This response was abolished by cervical vagotomy but not by inhalation of 100 per cent oxygen. It was concluded that the magnitude of the ventilatory response to pulmonary embolization is determined by the number of emboli injected and is independent of the site at which emboli lodge or the degree of their concentration or dispersion. The response is probably not initiated by hemodynamic changes incident to embolization. (Horres, A. D., and Bernthal, T.: *Localized Multiple Minute Pulmonary Embolism and Breathing, J. Appl. Physiol.* 16: 842 (Sept. 1961.)

**PULMONARY EDEMA** Hexamethonium 25 mg. was administered intramuscularly to 6 patients with pulmonary edema. In all patients, a pronounced therapeutic effect was noted within 20 to 30 minutes after the injection of the preparation; the improvement consisted of a considerable decrease or complete disappearance of dyspnea, orthopnea and a decrease of moist rales in the lungs. (Kheideman, K. K.: *Hexamethonium in Treatment of Pulmonary Oedema, Klin. Med. (Moskva)* 10: 95, 1960.)

**CORONARY THROMBOSIS** A counterpulsating pump connected to the arterial sys-

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