

BRONCHOGRAPHY Bronchography reduced lung capacities and interfered with alveolar aeration and intrapulmonary gas exchange. In a patient with poor pulmonary function, the interference with pulmonary function caused severe dyspnea. The extent of reduction in pulmonary function was most likely directly related to the proportion of the bronchial tree filled with the contrast medium. There was a greater reduction in pulmonary function in the group of patients in whom bilateral bronchograms were performed than in the group which had unilateral bronchograms. Lung capacities were restored to 85 to 90 per cent of the prebronchographic level within three hours following the procedure. Topical anesthesia and sedation did not influence the results of the voluntary pulmonary function tests. (*Christoforidis, A. J., Nelson, S. W., and Tomaszewski, J. F.: Effects of Bronchography on Pulmonary Function, Amer. Rev. Resp. Dis. 85: 127 (Jan.) 1962.*)

HYALINE MEMBRANE Hyaline membrane disease can occur in adults as well as in children. Two cases in post-thoracotomy patients are reported. Clinical signs appeared almost identical to those of acute pulmonary edema with cor pulmonale. Since the membrane appears to be composed of closely packed layers of fibrin produced in the absence of profibrinolysin activator and since the disease seems to be treatable with nebulized thrombinolysin such treatment is recommended if the syndrome is suspected. (*Holland, R. H., and Capers, T. H.: Pulmonary Hyaline Membrane Disease in Adults, Amer. Rev. Resp. Dis. 84: 719 (Nov.) 1961.*)

IATROGENIC ATELECTASIS Several workers have suggested that oxygen breathing of relatively short duration might cause diffuse pulmonary atelectasis due to absorption of trapped gas distal to temporarily occluded structures. Such atelectasis should be manifested by diminished pulmonary compliance. In the present study the time course of atelectasis during prolonged periods of oxygen breathing was identical with that during comparable periods of air breathing in both dogs and human subjects. Compliance after varying periods of apnea following respiration of

air, oxygen, or an oxygen-nitrous oxide mixture did not vary with the composition of the respired gas. It is concluded that breathing pure oxygen at atmospheric pressure for several hours does not promote the development of pulmonary atelectasis in normal subjects. (*Griffo, Z. J., and Rees, A.: Effect of Oxygen Breathing on Pulmonary Compliance, J. Appl. Physiol. 17: 233 (Mar.) 1962.*)

ATELECTASIS The oxygen partial pressure in the alveoli of a given portion of the lung tissue falls when this portion assumes the state of physiological atelectasis, and its ventilation ceases. This produces constriction of pulmonary arterioles and reduction or cessation of the blood flow through the alveolar capillaries. With the resumption of ventilation in the atelectatic portion, the partial pressure of oxygen in the alveoli rises, the arterioles dilate, and the blood flow increases again. This relation between the ventilation of the pulmonary tissue and its blood circulation is a product of evolution and constitutes an essential condition of a normal saturation of the blood with oxygen. (*Parin, V. V.: Influence of Pulmonary Ventilation on the Blood Circulation in the Lesser Circuit, Patol. Fiziol. i Eksper. Terap. 4: 7, 1960.*)

HEROIN AND MORPHINE Heroin was approximately two to four times as potent as morphine with respect to relief of moderate, severe or very severe postoperative pain during the first 150 minutes after injection in 522 patients with steady incisional pain due to major thoracic, abdominal or orthopedic surgery. The amount of heroin needed to match the analgesic potency of morphine (10 mg.) in the group comparisons ranged from 2.3 mg. to 5.2 mg. That variation was due partly to the fact that the analgesic power of heroin, relative to that of 10 mg. morphine, was greater early during the postinjection period than it was late during the postinjection period. The difference between heroin and morphine with respect to analgesic time course indicates that there is no single value of heroin which is equianalgesic to 10 mg. of morphine. (*Reichle, C. W., and others: Comparative Analgesic Potency of Heroin and Morphine in Postoperative Patients, J. Pharmacol. Exp. Ther. 136: 43 (Apr.) 1962.*)