

- 962 A Pathologic Study of Young Human Lungs for Emphysema. J. Kleinerman, et al.
Ann. Mtg. Absts. Intern. Acad. Pathol. Cleveland, March 5, 1966.
Lab. Invest. 15, 1140 (June, 1966).

The authors have undertaken a study of human lungs between the ages of one year and 45 years. The purpose is to observe if emphysema and bronchitis exist in this group, to study if lesions which might be interpreted as early as can be observed, and to see if stages of progression can be observed in material from younger persons. Lungs from infants, children, and young adults up to 43 years of age have been collected from three participating institutions. To date 40 lungs have been collected. These have been fixed in inflation by a formalin-vapor method. Sections have been prepared and studied grossly for site, size, and character of lesions. Measurements of air spaces were accomplished in 25 lungs. Histologic sections have been prepared and studied. Pleural pigmentation has been observed in 13 lungs ranging in age from 2 1/2 to 43 years. Pigmentation was not present in all lungs but appeared to increase with age. Pleural scars were observed in only a single case. Connective tissue septation was never complete and followed the distribution described by Ried and Rubino. Emphysema of an atypical form was observed in the lung of a 2 1/2 year-old child, who died of leukemia, and small lesions of the focal centrilobular "distensive" type were observed in only the 43-year-old lung. It appears that emphysema does not occur with the same frequency in the young as it does in the adult or aging population.

- 963 The Determination of the Degree of Emphysema on Autopsy Material. I. Prinsloo.
Lab. Invest. 15, 947-961 (June, 1966).

A method has been devised for determining the respiratory wall-to-respiratory space ratio. The purpose of this investigation was to determine the degree of emphysema objectively. It has been shown that respiratory wall-to-respiratory space ratio changes with age and that in South African miners with silicosis there exists a relationship between the degree of silicosis and the respiratory wall-to-respiratory space ratio, indicating that silicosis and emphysema are interrelated. There are 16 references.

-- Author's summary

- 964 Regional Distribution of Pulmonary Arterial Blood Flow in Emphysema. V. Lopez-Majano, D.E. Tow, and H.N. Wagner, Jr. J. Am. Med. Assn. 197, 81-84 (July 11, 1966).

Lung scanning after intravenous administration of macro-aggregated I-131 serum albumin has been used to study the regional pulmonary circulation in 62 patients with pulmonary emphysema. The major finding was that 95% of the patients had well-defined areas of decreased pulmonary arterial blood flow. In the majority of the cases, the chest roentgenogram alone was inadequate for demonstrating these localized changes. The scanning method was helpful in differentiating obstructive emphysema from less serious lung disease such as asthma and bronchitis. It was also useful in the determination of the desirability of surgery and in follow-up evaluation.

-- Authors' abstr.

- 965 Gross Fixation Methods Used in the Study of Pulmonary Emphysema. R.E. Silverton.
Thorax 20, 289-297 (July, 1965).

Techniques used for the fixation of lungs in the expanded position are described and discussed. The advantages and disadvantages of each are reviewed. The method of distending lungs with formal-acetate is the most convenient and most widely used procedure. In order to allow comparison of the results of different workers in the field, an attempt should be made to introduce a standard technique of inflation of the lung. Bronchial insufflation with liquid formalin using a pressure not greater than 30 cm. of water, with ligation of the vessels and bronchus, is suggested.

-- Am. Rev. Resp. Dis. Absts.

- 966 Interalveolar Air Drift. S.B. Reich and J. Abouav. Radiology 85, 80-86 (July, 1965).

Interalveolar aeration, or air drift, through the pores of Kohn is a well established physiologic phenomenon, the clinical significance of which is now being recognized. Experimental demonstrations in dogs of the nature of interalveolar air drift are presented. These interalveolar collateral channels are an integral part of the mechanism of cough. Their relationship to plate atelectasis, emphysema, unilateral hyperlucent lung, and migrating pulmonary nodules is discussed.

-- Am. Rev. Resp. Dis. Absts.

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