

- 464 Inhibiting Effect of Ultraviolet Light on the Development of Silicosis in Experimental Animals.
Z. D. Gorkin, G. I. Evtushenko and I. S. Ostrovskaia.
Gigiena i Sanit. 27, 20-25 (Oct. 1962).

The authors studied the action of various doses of ultraviolet radiations on the development of the silicotic process in experimental white rats. The effectivity was assessed by the data of pathomorphological examinations of the lungs of the animals sacrificed 6, 9, and 12 months after the beginning of the experiment and by certain other indexes. In one series of experiments the absolute collagen content of lung tissues was determined. Besides, the phagocytic activity of neutrophilic leukocytes against *Staphylococcus aureus* was investigated. It was determined that ultraviolet radiations in suberythmic and small erythmic doses inhibit the development of sclerotic lesions in the lungs produced by quartz dust. -- APCA Absts.

- 465 The Problem of Dimensions of Miniature Chest X-Ray Films. C. Garavaglia.
Med. lavoro 53, 170-178 (Mar. 1962). Italian.

The author studied 10 cm. and 7 cm. miniature x-ray films, from the point of view of recognition of detail (by densitometric analysis) and of diagnostic value (by comparative examinations), and then compared the above to radiographs. As a diagnostic test he used the radiological picture of simple pneumoconiosis, subdivided into categories according to the International Classification. The conclusion reached as the result of the study, was that the optimal dimension for miniature x-ray pictures was roughly 10 cm. -- APCA Absts.

- 466 A Case of Pseudo-Tumoural Silicosis. A. Grieco and E. Sartorelli.
Med. lavoro 53, 359-370 (May 1962). Italian.

This paper, illustrated with radiographs, describes the case of a man aged 45 years who had been dry-drilling tunnels for 20 years; the free silica ranged from 35% to 50%. In addition to punctiform fibrosis, chest x-ray examination showed an opacity 5 cm. in diameter in the right lower lobe. It was sclerotic, rich in anthracotic pigment and did not resemble the histological picture of tuberculosis or Caplan's syndrome. The ashed residue contained 6% quartz. Resection of the affected lobe was carried out, but the patient subsequently developed a pleural effusion and tuberculous cavities in the left lung, from which he died. The authors consider the case to be one of silicotuberculosis in which the nodular mass was a tuberculosis lesion immunologically enhanced by silicosis; it is considered that the secondary cavity formation was caused by ischemic necrosis. -- Bull. Hyg.

- 467 Silica Powders of Respirable Size. II. Dissolution Rates in Dilute Hydrofluoric Acid.
I. Bergman. *J. Appl. Chem. (London)* 12, 336-341 (Aug. 1962).

As part of fundamental studies in silicosis research, the rates of dissolution in 0.1 M-hydrofluoric acid of size-graded powders of quartz, tridymite, cristobalite and vitreous silica, having particle diameters in the range 0.2 - 5.0 microns have been measured by a conductimetric micromethod. The rates of dissolution per unit area of the vitreous silica powders were an order of magnitude larger than those of the tridymite or cristobalite powders, and two orders of magnitude larger than those of the quartz powders. Quartz, unlike the other polymorphic forms of silica, showed an increase in rate (per unit area) with decreasing particle size as well as an increase in the relative amount of "easily soluble layer". These results are adduced as evidence against the "solubility theory of silicosis" and in favor of a biological activity dependent on the surface structure. -- Bull. Hyg.

- 468 Asbestosis and Tuberculosis—A New Aspect of the Compensation Liability.
H. Bohlig, G. Jacob and H. Muller.
Intern. Arch. Gewerbepathol. Gewerbehyg. 19, 434-449 (1962). German.

In both West and East Germany regulations provide for compensation for victims of silicosis and silicosis accompanied by tuberculosis. There is also provision for asbestosis victims but not where asbestosis is accompanied by tuberculosis. This position has not been