36% of the controls. Multiple pulmonary tumors were demonstrated in 18% of the dusted animals and in 8% of the control animals. No significant histologic or cytologic difference was observed between tumors in the two groups. No clear-cut proof of malignancy was found in any of the lung tumors studied. The authors have been unable to demonstrate any proof of the carcinogenicity of asbestos under the conditions of the experiment, but the increased incidence of multiple lung tumors in dusted animals must be regarded as a possible accentuation by the inhalation of asbestos dust of an existing tendency to develop lung tumors. Future experiments with asbestos should include the use of larger animals, probably monkeys. The equivocal nature of this report does not answer the questions raised by accumulating clinical evidence that asbestosis is strongly associated with, and therefore is a possible cause of, pulmonary carcinoma in man. -- Adapted from authors' summary

507 Calcification of the Pericardium Caused by a Hitherto Unrecognized Etiological Factor. M. Kleinfeld and C. P. Giel. Am. Heart J. 52, 899-904 (Dec. 1956).

In a clinicoroentgenologic study of workers employed in talc mills and mines, calcification of the pericardium was observed in 3 of 37 workers. In one patient the condition had existed for 15 years. The advanced age of these patients (79, 68, and 64 years) is in contrast to that found in chronic constrictive pericarditis, where the age range reported has varied from 10 to 59 years. Cardiac enlargement was absent, and the electrocardiographic patterns were essentially normal. The clinical picture revealed a chronic, slowly progressive course, with the predominant symptoms of pulmonary insufficiency consistent with the average course of talc pneumoconiosis. The normal electrocardiograms, lack of evidence of failure of either side of the heart, lack of response to nitroglycerin, and the absence of any intensifying effect of effort would tend to exclude angina pectoris. The exact mechanism responsible for the calcification of the pericardium in exposure to talc is not known. It can best be explained by a mechanical effect of the talc fibers resulting in a chronic inflammatory response and increased capillary hemorrhage with subsequent calcium deposition. -- Cond. from J. Am. Med. Assn.

508 Dust Exposures During Ash Removal from Incinerators. W. H. Megonnell, J. H. Ludwig, and L. Silverman. Arch. Ind. Health 15, 215-222 (Mar. 1957).

Dust exposures to the operator during ash removal are not excessive for the average institutional-type incinerator, as the stack draft through the open furnace doors draws most of the dust produced by the operation back into the incinerator. Installations with small stacks, or when reverse flow is created by wind action, produce higher and more persistent dust concentrations. Incinerator operation is poorer during rainy weather. Only minor dust exposures are produced when water quenching of the ash is used, and wetting is advisable when it can be accomplished. Airborne dust in incinerator rooms is of the same general composition as the ash. It is composed of a high percentage of small particles (50% less than 0.5 micron), with larger particles which are predominantly aggregates. Exposure period for operators removing ash is a function of the degree of cleaning accomplished and the quantity of ash removed. Stack draft and room ventilation appear to be the most important factors in limiting the concentration of airborne dust in the incinerator room. A large proportion of the dust exposure incidental to ash removal could be eliminated by careful disposal cans to take advantage of the effect of stack draft and by care in depositing ashes from the shovel into containers. Obviously the furnace door and grate opening should be kept open throughout all cleaning in the incinerator room. -- Cond. from authors' summary

509 Changes in Lungs of Experimental Animals after Intratracheal Introduction of Mineral-Wool Dust. V. A. Grimailovskaya and others. Gigiena i Sanit. 21, No. 8, 24-29 (1956). Russian.

Mineral-wool dust with relatively low free silica and moderate contents of bound silica produces in rats after 2-3 months a moderate sclerosis of diffuse and nodular types; after 5 months a peribronchial sclerosis starts. This is caused by solubility of dust particles in the lymph. - Chem. Absts.

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