FILE NAME: Asbestos in India (IND)

DATE: 1954 May

DOC#: IND002

DOCUMENT DESCRIPTION: Journal Abstract - Nature of Lesions Caused by Asbestos & Mica in Experimental Pneumoconiosis in Guinea Pigs

549 Further Thoughts on Silicosis. P. Heffernan. Tubercle 34, 246-249 (Sept. 1953).

The author rejects the solubility theory of silicosis and propounds instead a surface valency theory. The structure of freshly fractured silica is held to possess chemical surface activity with ability to coagulate and fix large masses of organic material. The freshly fractured ends of asbestos are postulated to possess the same activity; hence asbestosis. Freshly powdered aluminum forms a protective coating over the silica particles to render them harmless. Further details are given, but the discussion is entirely theoretical. -- Cond. from Bull. Hyg.

550 The Nature of Lesions Caused by Asbestos and Mica in Experimental Pneumoconiosis in Guinea Pigs. A. S. Ramaswamy, D. S. Venkatesh, and R. Rama Rao. J. Indian Inst. Sci. 35, Sect. A, 319-331 (Oct. 1953).

Guinea pigs were subjected to intratracheal injections of mica and asbestos dusts. Stress is laid on the development, after long periods, of lesions in other organs besides the lungs, especially in the adrenal glands. Mica dust was found to lead to some degree of nodular formation in the lungs, but the asbestos dust set up diffuse fibrosis only. These differences are portrayed in a series of photomicrographs. Mica induced hypertrophy of the adrenal cortex with extensive foamy disintegration of the cortical cells; asbestos induced lesser changes, but small areas of necrosis were occasionally found in the zona fasciculata and zona reticulata. In a theoretical discussion, the authors attempt to draw a relation between the atomic structure of mica and asbestos and the pathological lesions in the lungs and other organs. Their theory, however, leaves many points unexplained. --Cond. from Bull. Hyg.

551 Action of Testosterone in Guinea Pigs Infected with Koch's Bacillus with Reference to Therapy of Silico-Tuberculosis. A. Raule, L. Pecchiai, and R. Grisler. Med. lavoro 44, 475-484 (1953). Italian with English summary.

Of 20 guinea pigs infected with 1 mg. of tubercle bacilli suspended in water 10 received daily 0.5 mg. testosterone propionate. The treated animals showed less reaction in the lymph glands at the site of injection than in other parts and the granulomata were less developed. The sclerotic scar tissue which replaces granulomata appeared in the controls to be hyperplastic, but not in the treated animals. -- Chem. Absts.

Of all U.S. business firms--slightly over two million--only 5% have 20 or more employees, and only 25% have four or more employees. -- Supervisor's Personnel Newsletter Bureau of Business Practice, Dec. 7, 1953