

- 457 Byssinosis in a Cotton Weaving Mill. A. Bouhuys.
Arch. Environmental Health 2, 465-466 (Apr. 1963).

Symptoms of byssinosis were found in 19 of 22 workers employed in weaving heavy cloth made of unsized yarns. Forced expiratory volume decreased significantly on Monday but not on Wednesday in 17 weavers. Adequate dust-control measures should be taken in weaving mills manufacturing this type of cloth. In addition, Monday-dyspnea may be relieved by inhalation of isoproterenol.

-- Author's summary

- 458 Serum Protein Fractions in Rheumatoid Pneumoconiosis without Arthritis. R. B. Payne.
J. Clin. Pathol. 15, 475-477 (Sept. 1962).

Rheumatoid pneumoconiosis may occur in the absence of arthritis, and positive rheumatoid factor tests have been found in a significant number of miners thus affected. The author has studied the serum protein fractions by means of electrophoresis, together with the sensitized sheep cell agglutination test, the bovine gamma globulin latex fixation test and the RA test, in 14 coal miners without arthritis but with chest radiograph opacities characteristic of rheumatoid pneumoconiosis. These were matched with 14 subjects each having Caplan's syndrome or progressive massive fibrosis or simple coal worker's pneumoconiosis, and also with 6 healthy non-miners. The results for the 62 men are shown in two tables. The last 3 tests were positive only in those with rheumatoid pneumoconiosis, and the percentages varied between 50 and 79 in those without arthritis to 66 in those with arthritis. In the electrophoretic tests, those with opacities typical of rheumatoid pneumoconiosis but without arthritis showed a reduction in the albumin level and an increase in alpha-2 and gamma globulin compared with levels in miners with simple coal worker's pneumoconiosis and in normal subjects. The changes were smaller than those found in miners with Caplan's syndrome and did not differ significantly from those found in miners with progressive massive fibrosis, but without arthritis. It would seem that estimation of serum protein fractions is unlikely to be helpful in the differential diagnosis of unusual opacities seen in chest radiographs of miners without arthritis.

-- Bull. Hyg.

- 459 Considerations on the Pneumoconiosis of Iron Miners. P. Casanouve and G. B. Soudan.
J. franc., Med. et Chir. Thorac. 16, 21-28 (1962).

From a statistical and clinical study of the cases of pneumoconiosis encountered among the iron miners of the Briey Basin, it is concluded that siderosis is of frequent occurrence and may sometimes be associated with silicosis. In its pure form, it is characterized by the moderate nature of the signs of respiratory insufficiency, which are accompanied by a radiological picture of the reticular or micronodular type, especially of the nodular or pseudotumoral type. Its gravity lies in its early repercussion on the right cavities of the heart, which should be detected before the stage of right ventricular insufficiency on the basis of clinical and ECG premonitory signs. Therefore, the role of the specialist should be to diagnose the cardiac involvement by having recourse, if necessary, to oxymetry and to catheterization. Spirometric tests have only a relative value for the assessment of the exact degree of incapacity. The latter should be evaluated as a function of the condition of the heart.

-- Public Health Eng. Absts.

- 460 The Conflict of Living Matter with the Mineral World: The Pneumoconioses. A. Policard.
J. Clin. Pathol. 15, 394-400 (Sept. 1962).

This research has been directed to the action of industrial mineral dusts on phagocytic cells and their capacity to bring about the production of fibrogenic toxic products. Two methods are in use. In the first, macrophages obtained after injection of dusts into the peritoneal cavity of rats have been examined in vivo. The method of obtaining a phase-contrast film is given and the results obtained from a study of these films show that the dust is phagocytosed by histocytes, not by polynuclear cells. The changes vary according to the dust. With inert dusts no effect is produced on the cells except that when particles are numerous movement is slowed. With quartz the activity of the macrophages is much diminished and internal movements of cytoplasm may be suppressed. With calcite and some other dusts, the particles are contained in the vacuoles or near them. The second method is examination with the electron microscope of changes in the ultra-structure of the cell produced by the presence of dust. Coal dust, hematite dust, titanium