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MELLON INSTITUTE, PITTSBURGH, PA.

CLASSIFIED SUBJECT			FELLOWSHIP NUMBER	FILE NUMBER
374 3/36			NFC	753

AUTHOR: G. Jacob and H. Bohlig.

TITLE: Incidence and characteristics of lung cancer in asbestos workers.

ORIG. REFS.	VOL.	PP.	DATE	ABSTR. REFS.	VOL.	PP.	DATE
German. Arch. Gewerbepath. Gewerbehyg.	14	10-28	(1955)	Bull. Hyg.	30	1080	12/55

This is a study of the incidence of lung cancer among asbestos workers in Dresden. The international literature is based exclusively on the results of autopsies; the incidence among asbestos workers appears to vary between 12 and 17%. In Dresden, however, from research into cases at the clinic and among asbestos workers, it appears to be rare, it being estimated that only about one-fourth of these workers have an effective exposure to the dust. In cooperation with the radiological and radium institutes the authors reviewed the cases of asbestosis reported since the middle of the 1930s. These numbered 339 in all stages; they are classified according to stage and sex. Silicosis was found in eight males. In five females and ten males (4.4% of the total) active open tuberculosis was found. Four fatal cases of lung cancer in asbestos workers, which occurred in Dresden up to 1954, are described. A long discussion of the literature on cancer among asbestos workers includes an examination of the characteristics of the disease; these are no longer convincing evidence of a high incidence of cancer in asbestosis. In the future, cases of cancer of the lung in asbestosis should not be published individually but should always be considered in the framework of the whole asbestos industry in the region. -- Cond. from Bull. Hyg.

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MELLON INSTITUTE, PITTSBURGH, PA.

CLASSIFIED SUBJECT			FELLOWSHIP NUMBER	FILE NUMBER
1188 9/56			NFC	752

AUTHOR: H. Bastenier, H. Denolin, A. de Coster, and M. Englent.

TITLE: A study of respiration in pulmonary asbestosis.

ORIG. REFS.:	VOL.	PP.	DATE	ABSTR. REFS.:	VOL.	PP.	DATE
French. Arch. maladies profess.	16	546-553	1955	Bull. Hyg.	31	544	5/56

In order to test the respiratory value of lungs affected with asbestosis nine cases were closely studied. The seven men and two women had been exposed to asbestos dust, 1,000 to 2,000 particles per cu. m., for 18 to 30 years. The patients displayed definite symptoms of asbestosis with troublesome cough and dyspnea, and all showed x-ray shadows like ground glass extending over both lungs. No tubercle bacilli were found in any case. A definite reduction was found in vital capacity, but the maximum expiratory volume was satisfactory. Breathing, however, was accelerated by hyperventilation. At rest breathing was sufficient and satisfactory, but on exertion dyspnea appeared, varying considerably according to the pathological lesions in the lungs. These functional changes were in no way different from those seen in other cases of pneumoconiosis. Varying emphysema was found, but no special strain was thrown upon the heart. -- Cond. from Bull. Hyg.

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MELLON INSTITUTE, PITTSBURGH, PA.

CLASSIFIED SUBJECT			FELLOWSHIP NUMBER	FILE NUMBER
7/56 9/2			NFC	752

AUTHOR: G. Jacob and H. Bohlig.

TITLE: Roentgenographic complications of pulmonary asbestosis.

ORIG. REFS.	VOL.	PP.	DATE	ABSTR. REFS.	VOL.	PP.	DATE
German. Fortschr. Gebiete Rontgenstrahlen	83	515-525	Oct '55	Am. Rev. Tuberc.	73	202	5/56

ABSTRACT:

Over a period of approximately twenty years, 343 cases of asbestosis, 130 in women and 213 in men, were observed in Dresden, a center for industries using asbestos. The most common complications were pleural thickening, compensatory emphysema, and nonspecific peribronchial, peribronchiectatic, and bronchopneumonic inflammations. Pleural changes were found in 49 per cent of the cases, 5 per cent of which had extensive, irregularly shaped calcifications. Active pulmonary tuberculosis was present in 4.4 per cent of the cases; bronchogenic cancer was not more frequent than in the general population but, when present, was found relatively often in the lower lobe. -- Am. Rev. Tuberc.

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CLASSIFIED SUBJECT	FELLOWSHIP NUMBER	FILE NUMBER
1011 3/57	NFC	752

AUTHOR: M. Navratil, V. Krecek, and L. Cvachova.

TITLE: Results of functional respiratory and circulatory tests of workers exposed to asbestos dust over a number of years.

ORIG. REFS.: Czech.	VOL.	PP.	DATE	ABSTR. REFS.:	VOL.	PP.	DATE
Pracovni Lekarstvi	8	329-333	1956	Bull. Hyg.	32	460	5/57

ABSTRACT:

Sixty workers exposed to asbestos dust were classified according to severity of asbestosis and according to age. They were subjected to functional tests for prolonged expiration and for ventilatory coefficients, and to electrocardiography. In the over 50 age group, quite apart from all radiological data, a drop in vital capacity is found, due not merely to age but also to emphysema which was detected in 19 patients. The ventilation coefficients in the asbestosis-free and early asbestosis groups were within normal limits. In those with advanced asbestosis there was a distinct drop in the ventilation coefficients, due to fibrosis and associated pathological conditions. The differences in the carbon dioxide ventilation coefficients and in the vital capacity figures were on the limit of significance. Hypertrophy of the right heart was present in two subjects with advanced asbestosis.

---- Cond. from Bull. Hyg.

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MELLON INSTITUTE, PITTSBURGH, PA.

CLASSIFIED SUBJECT: 1190 9/5d

FELLOWSHIP NUMBER: NFC

FILE NUMBER: 753

AUTHOR: H. Bohlig and G. Jacob.

TITLE: New viewpoints on pulmonary cancer in asbestos workers.

ORIG. REFS.:	VOL.	PP.	DATE	ABSTR. REFS.:	VOL.	PP.	DATE
German, Deut. med. Wochschr. 81,		231-233	Feb. 17, '56	J. Am. Med. Assn.	161	916	6/30/56

The following distinguishing features have been attributed to the lung cancer that has been recognized as an occupational disease of asbestos workers: (1) increased incidence; (2) development at an early age; (3) dependence on duration of exposure to asbestos dust; (4) a latent period between onset of exposure and the appearance of the cancer; (5) the localization; (6) the histological structure; and (7) the multicentral origin. The authors discuss each of these points, and show that there is little clear evidence to support any of these assumptions, with exceptions noted. Women workers in the asbestos industry have lung cancer more often, and at an earlier age than do other women, but the same is not true of men. Malignant growths of the pleura seem to occur more often in asbestos workers than in other persons. The multicentral development is observed also in workers exposed to cobalt and to chromates. The study of the pathogenesis is still in the state of hypotheses, and the theory of mechanical pathogenesis is given most consideration. Microtraumas and asbestos bodies are always found in the pulmonary cancers of asbestos workers, but the authors feel that this does not necessarily prove the mechanical theory. They cite several factors that speak against a purely mechanical pathogenesis of asbestos cancer, but they concede that the development of so-called asbestos warts proves the irritating effect of asbestos on human tissues. -- Cond. from J. Am. Med. Assn.

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Digest

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MELLON INSTITUTE, PITTSBURGH, PA.

			FELLOWSHIP NUMBER	FILE NUMBER
1189 9/56			FC	752

AUTHOR: E. R. Wiese and W. E. B. Hall.

TITLE: Asbestosis: report of a case.

ORIG. REFS.:	VOL.	PP.	DATE	ABSTR. REFS.:	VOL.	PP.
Diseases of Chest	30	229, 230	Aug. '56			

The history and autopsy findings in a fatal case of asbestosis are reported. Conditions described include: absence of the middle lobe of the right lung; greatly enlarged heart; wide spread, sharply demarcated development of fibrosis; and degeneration of collagen in extensive irregular fields. These and other conditions are described fully. Fine needles representing the original asbestos fibers were seen. Small asbestos bodies were seen in a few areas of focal fibrosis, although they had not appeared in the sputum.

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MELLON INSTITUTE, PITTSBURGH, PA.

CLASSIFIED SUBJECT			FELLOWSHIP NUMBER	FILE NUMBER
761 6/57			NFC	752

AUTHOR: J. Frost, J. Georg, and P. F. Moller.

TITLE: Asbestosis with pleural calcification among insulation workers.

ORIG. REFS.:	VOL.	PP.	DATE	ABSTR. REFS.:	VOL.	PP.	DATE
Danish Med. Bull.	3	202-204	Nov. '56	Bull. Hyg.	32	260	3/57

ABSTRACT:

In Denmark only a few persons manipulate insulation products including asbestos, kieselguhr, magnesia, glass wool, and rock wool. The first two have been regarded as fibrogenic to the lungs when their dust is inhaled. In order to ascertain any occupational risk in the work 31 workers with more than 20 years' exposure, of 52 years average age, were carefully examined clinically and by x-ray. Abnormalities were found in the surprising number of 22. A total of nine exhibited fine mottling indicative of pulmonary asbestosis. In 19 patients pleural changes were seen, which were due to adhesions and extensive thickening with calcification. The abnormalities in the pleura were so widespread in some instances as to obliterate other pathological changes. The calcification is unusual and may be ascribed to combined exposure to calcium and magnesium in the presence of fibrogenic asbestos dust. Sample analyses of the kieselguhr in use did not reveal the presence of alpha-quartz. The finding of pronounced bilateral pleural changes in the present series definitely points to an occupational origin. -- Cond. from Bull. Hyg.

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MELLON INSTITUTE, PITTSBURGH, PA.

CLASSIFIED SUBJECT: 29 2/55

FELLOWSHIP NUMBER: NFC

FILE NUMBER: 752

AUTHOR: E. Sartorelli.

TITLE: Severe asbestosis with alveo-capillary block syndrome.

ORIG. REPS.:	VOL.	PP.	DATE	ABSTR. REPS.:	VOL.	PP.	DATE
Italian. Med. lavoro	48	358-362	1957	Bull. Hyg.	32	969	Oct. '57

ABSTRACT:

The author reports a case of severe asbestosis in a man aged 57 who was employed for seven years in a very dusty asbestos factory. Three years after commencing work the patient complained of dyspnea on exercise, with slight sputum, the condition became progressively worse and finally he was sent to a sanatorium as a case of combined tuberculosis and asbestosis with a disability of 50%. After two years, in spite of his respiratory symptoms, he started work as a general laborer, and was admitted to the author's clinic three years later with a recurrence of chest symptoms. No tubercle bacilli were found. X-ray of the chest showed intense reticulation especially in the medio-basal regions, small zones of fibrosis in the right apico-clavicular area and thickening of the pleura at the left base. Tests of respiratory function showed dyspnea on repose and markedly so on exercise, and while respirometry gave only slight alteration from normal, the oxygen saturation was only 90%. The diagnosis of advanced asbestosis was made on account of the marked respiratory insufficiency, absence of tuberculosis, increased erythrocyte sedimentation rate and hypergammaglobulinemia. -- Cond. from Bull. Hyg.

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MELLON INSTITUTE, PITTSBURGH, PA.

CLASSIFIED SUBJECT	FELLOWSHIP NUMBER	FILE NUMBER
506 4/57	FC	753

AUTHOR: K. M. Lynch, F. A. McIver, and J. R. Cain.

TITLE: Pulmonary tumors in mice exposed to asbestos dust.

ORIG. REFS.	VOL.	PP.	DATE	ABSTR. REFS.	VOL.	PP.	DATE
Arch. Ind. Health	15	207-214	Mar.'57				

ABSTRACT:

Mice of a selected strain (AC F_1) were exposed to a dusty atmosphere containing asbestos floats of a type used by others experimentally, at 150 to 500 million particles per cubic foot. The largest single experimental group consisted of 127 animals killed at 19 months after exposure for 17 months. This group was compared with 222 control animals. Primary lung tumors were demonstrated microscopically in 46% of the dusted mice and in 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

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