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severe cases than in the mild cases. These differences are statistically significant. The author finds that amongst the mild cases low plasma chloride concentrations were more frequent when vomiting had occurred than when there was no vomiting, and more frequent when the patients suffered from cramp than when there was no cramp. But the reviewer finds that these differences between the sub-groups of mild cases were not statistically significant.

Of the personal factors related to collapse the most important appear to be loss of acclimatization (following two to seven days' absence from work), disturbance of health, and unacclimatization. Emphasis is laid on the importance of deficient salt intake.

In the deeper levels of these mines, 7,000 to 8,000 ft., dry bulb temperatures reach 115° to 120°F., and wet bulb temperatures as high as 97°F. are reported. Collapse is liable to occur when the wet bulb temperature exceeds 90°F., and especially when it is above 93°F. The engineer should keep the wet bulb below the latter level. The benefits of air-conditioning are demonstrated by a striking fall in the incidence of collapse at Champion Reef Mine.—*T. Bedford.*

TOXIC NECROSIS OF THE LIVER FROM TRINITROTOLUENE.

Walter L. Palmer, Gerald S. McShane and William H. Lipman. *J. A. M. A.*, vol. 123, no. 16, pp. 1025-1027 (Dec. 18, 1943).

In three cases of apparent trinitrotoluene poisoning with recovery, the evidence suggests that the toxic necrosis of the liver was severe in one, moderate in the second, and slight to moderate in the third.

A residual pigmentation and inflammation of the skin of the ankles was noted in the third patient in addition to the jaundice, anilism and gastrointestinal symptoms characteristic of trinitrotoluene intoxication.—*Authors' summary.*

CO-INCIDENCE OF PRIMARY CARCINOMA OF THE LUNGS AND PULMONARY ASBESTOSIS. F. Homburger. *Am. J. Path.*, vol. 19, no. 5, pp. 797-807 (Sept., 1943).

In the medical literature there are now at least 19 known cases of asbestosis associated with primary pulmonary carcinoma. In 4137 autopsies at the pathology laboratory at Yale University School of Medicine, there were 45 cases of pulmonary carcinoma in the years from 1918 to 1938. Asbestosis was diagnosed 8 times, silicosis 17 times. Pulmonary carcinoma was found in 4 of the 8 cases of asbestosis and twice in the 17 silicotic cases.

Despite the high correlation of the foreign body asbestosis in the lungs with primary pulmonary carcinoma, this is a small series of cases and the value of these data is limited. Three cases are given in detail. The diagnosis of pulmonary asbestosis was diagnosed according to the following criteria: 1) fibrosis of the lung and 2) presence of asbestosis bodies.—*Stephen L. Moley.*

ASBESTOSIS AND PULMONARY TUBERCULOSIS. R. Desmeules, L. Rousseau, M. Giroux and P. Richard. *Laval méd.*, vol. 8, p. 217 (March, 1943).

Asbestosis is an occupational disease of the lungs due to inhalation of asbestos dust. It is characterized by the transformation of normal lung tissue into fibrous tissue. Symptoms appear usually five to seven years after the beginning of the exposure. The presence of asbestos bodies in the sputum is a proof for the existence of pulmonary asbestosis. Both asbestosis and tuberculosis were seen in 8 workers exposed to asbestos dust for five to twenty years. Three of these cases are described, in whom the asbestosis was masked by tuberculosis and where the history and the presence of the asbestos bodies permitted the diagnosis.—*Am. Rev. Tuberc.*

ASBESTOSIS AND PULMONARY TUBERCULOSIS. R. Desmeules and M. Giroux. *Laval méd.*, vol. 8, p. 227 (March, 1943).

The case history of a forty-four year old man is given who had worked for twenty years in an asbestos mill. After ten years he had developed productive cough which increased gradually. Only a short time prior to his admission to the hospital the patient started to run fever and had pains in his chest. The diagnosis of ulcero-fibrous tuberculosis and asbestosis was made. Tubercle bacilli and asbestos bodies were found in the sputum. The autopsy confirmed the clinical diagnosis. Besides the ulcero-fibrous tuberculosis, diffuse peribronchial and perialveolar sclerosis with numerous asbestos bodies was seen. Radiologically and pathologically it could not be decided whether the tuberculosis preceded or followed the asbestosis. However, it is believed that the first symptoms of asbestosis appeared ten years before the symptoms of tuberculosis.—*Am. Rev. Tuberc.*

PULMONARY ASBESTOSIS. L. Rousseau. *Laval méd.*, vol. 8, p. 233 (March, 1943).

The radiological picture of pulmonary asbestosis is not characteristic; it is usually similar to that of tuberculous fibrosis. The diagnosis is, therefore, often made only after asbestos bodies have been found in the sputum. Asbestos fibers may be seen in the sputa of individuals who do not suffer from asbestosis; asbestos bodies are due to a pathologic tissue reaction. Microscopical examination of the lungs of patients who have died from an intercurrent disease may show asbestosis, which had not been found on X-ray examination. It cannot be decided whether asbestosis favors the development of pulmonary asbestosis. The case history of a forty-two year old man with asbestosis without tuberculosis is given. The patient had been working in the asbestos industry for eighteen years. For two years the patient had been suffering from increasing cough, expectoration and dyspnea. Roentgenological examination showed mottling of both lungs. Sputa

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and gastric examinations were negative for tubercle bacilli. Asbestos bodies were found in the sputum.—*Am. Rev. Tuberc.*

ASBESTOSIS BODIES. *M. Giroux. Laval méd., vol. 8, p. 236 (March, 1943).*

The "curious bodies" found in the sputum of patients suffering from pulmonary asbestosis usually measure 24 to 50 μ by 12 to 24 μ but can be as large as 250 μ . They consist of a central fiber of asbestos which is covered by a golden-yellow substance containing iron. Rabbits, guinea pigs and one dog were exposed to inhalation of asbestos dust. Asbestosis did not develop in the rabbits nor in the dog. The guinea pigs showed, after several weeks, macrophages with asbestos fibers in their alveoli. Erythrocytes appeared in the alveoli, and hemoglobin derivatives containing iron could be found on asbestos fibers two to three months after the beginning of the inhalation of the asbestos dust. When a suspension of asbestos in olive oil was injected subcutaneously or into the testicles of guinea pigs no asbestos bodies were formed. However, if first one cc. of blood was injected and then the asbestos dust through the same needle, asbestos bodies could be found one month later. The presence of asbestos bodies in the sputum is believed to be a definite sign of pulmonary asbestosis.—*Am. Rev. Tuberc.*

BAGASSE DISEASE OF THE LUNG. *W. A. Sodeman and R. L. Pullen. New Orleans Med. & Surg. J., vol. 95, no. 12, pp. 558-560 (June, 1943).*

A case of bagasse disease of the lung is reported together with the findings at biopsy in an involved area of the lung. The picture appears to be that of an organic pneumoconiosis. It is evident that particles of bagasse may enter the alveolar regions and produce this reaction. The mechanism of the changes, and the nature of the stimulus set up by the bagasse dust to produce the cellular reaction, remain obscure.—*Jack Bronfenbrenner.*

LIQUEFACTION NECROSIS IN BILATERAL SYMMETRICAL CONGLOMERATE LESIONS OF ANTHRACOSILICOSIS OF LUNG. REPORT OF CASE. *B. J. McCloskey. Am. J. Roentgenol., vol. 50, no. 1, pp. 42-45 (July, 1943).*

It is the intention of the author to show that the correct interpretation of the roentgen appearance of necrosis and cavitation in the conglomerate lesions of anthracosilicosis may be very difficult. A case is reported, showing these lesions, uncomplicated by tuberculosis. The only known exposure to silica was that the man worked as a pick miner in a soft coal mine for a period of 12 years and there was no exposure for a period of 44 years before his death. The roentgenologic appearance of the necrotic areas was that of consolidation or pleural thickening. At autopsy each lung was found to contain thick, black, viscid fluid, and showed no free silica on examination. Examination

of the cavity wall and surrounding lung tissue showed a content of 0.25 per cent silica.—*Jack Bronfenbrenner.*

PNEUMOCONIOSIS AND WORKING CONDITIONS IN COAL MINES. *Brit. Med. J., no. 4316, pp. 395-396 (Sept. 25, 1943).*

The Committee on Industrial Pulmonary Disease has been unable to draw final conclusions on causation or differences in incidence of pneumoconiosis in the South Wales coalfield. Anthracite dust is more dangerous than that of bituminous mines. The most important measure in prevention is the reduction of dust breathed by the miners. To this end, the committee advocates a series of procedures which are discussed in this article: (1) maintenance of adequate ventilation, (2) use of water to prevent dust dispersion, (3) allaying of dust in roadways and at loading points, (4) reduction of shot-firing to a minimum, with fewest possible men exposed, (5) regulation of ripping processes, and (6) prevention of chill during spake journeys.—*Jack Bronfenbrenner.*

RADIUM POISONING AND ITS PREVENTION. *E. Neitzel. Z. ges. Schiess- u. Sprengstoffw., vol. 37, pp. 74-75, 94-96, 114-116, 132-135, 155-156 (1942).*

Various well known examples of radium poisoning are described. On account of its relation to calcium in the periodic table radium can replace calcium wherever found in the animal organism. From its point of fixation in the body radium exercises destructive effects upon the tissues, mainly by virtue of its disintegration products. In small doses the destructive effects are frequently not noticed until after long periods of time, sometimes as long as ten years. The physiologic effects of the several disintegration products are described, as are the various means of measuring the radioactivity of samples and the several routes by which radium or its emanations may enter the human body. One of these is the breathing of radium emanations. Charcoal, silica gel and Permutit were tried, without marked success, for absorbing these emanations. A detailed method is described for examination of urine, blood, etc., for radium emanations. Various diagnostic means and a quantitative method for estimating the amount of radium in the body and in cadavers is described. Various means are given for preventing radium poisoning as prescribed by the safety precautions of the Association of Chemical Industry in Germany. A review of the literature is included.—*Chem. Abstrs.*

TREATMENT OF LEAD POISONING. CONFERENCES ON THERAPY. *N. Y. State J. Med., vol. 43, no. 21, pp. 2079-2086 (Nov. 1, 1943).*

The discussion emphasizes the facts that ingested lead, especially in small amounts, rarely causes poisoning because of poor absorption, and that the greater