

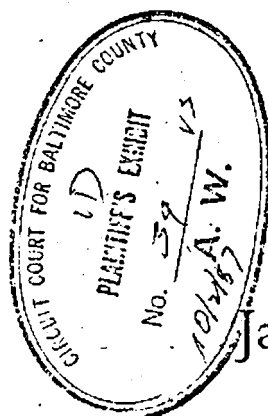
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1156. Asbestosis with Pleural Calcification among Insulation Workers

J. FROST, J. GEORG, and P. F. MÖLLER. *Danish Medical Bulletin* [Dan. med. Bull.] 3, 202-204, Nov., 1956. 2 figs., 17 refs.

Experience in many countries has established that workmen employed in the lagging of pipes and boilers may contract pneumoconiosis in the course of their employment. Lagging materials vary in composition; common ingredients are kieselguhr, magnesia, and asbestos, and in more recent years rock wool and glass wool. About 100 lagger are employed in the shipyards and factories in and around Copenhagen. The authors examined 31 of these workmen who had been engaged for 20 years or more in the processes, and 9 were found to have definite signs of asbestosis. In addition, 19 showed abnormalities of the pleura, and in 11 of these there was calcification of the pleura, which was bilateral in 8 cases.

[The main purpose of the authors of this paper was to record the condition of "calcification" of the pleura in asbestos workers, they having found only one previous reference to such a case (Jacob and Böhlig, *Fortschr. Röntgenstr.*, 1955, 83, 515). Since being shown this series of radiographs in Copenhagen in 1954, the abstractor has seen a series of similar radiographs from asbestos workers in the mines in South Africa. The dense, well-defined shadows are very striking, but as yet there is no necropsy evidence which confirms the deposition of calcium salts in the plaques. Since dense pleural sclerosis can simulate calcification such evidence of the morbid anatomy and pathology of the condition is needed.]

A. Meiklejohn

1157. Cardiovascular Changes in Lead Workers. (Le alterazioni cardiovascolari nei lavoratori del piombo)

M. CREPET, F. GOBBATO, and G. SCANSETTI. *Minerva medica* [Minerva med. (Torino)] 2, 1910-1918, Dec. 8, 1956. 6 figs., 37 refs.

The cardiovascular function of 73 persons employed for periods of 4 months to 54 years in work involving exposure to lead was investigated by routine clinical and electrocardiographic (ECG) examination at the Institute of Industrial Medicine of the University of Turin and the findings correlated with the results of laboratory tests which included a full blood examination and the estimation of porphyrins in the urine and blood and in some cases of urinary and blood lead content.

The workers were divided into three groups: (1) those showing signs of lead absorption but no toxic symptoms; (2) those suffering from or having just recovered from an acute attack of colic; and (3) those with a long history of exposure to lead, and with a past history of toxic symptoms. In Group 1 there were neither clinical nor ECG changes; in Group 2 the blood pressure was raised during the attack of colic, with either bradycardia or a tendency to tachycardia, and there was some evidence of vagal hypertonia; in Group 3 hypertension, with a

diastolic pressure above 90 mm. Hg, was frequent, the ECG usually showed disturbance of rhythm, and there was one case of simple auriculo-ventricular block.

It is concluded that cardiovascular changes are significantly frequent in both acute and chronic lead poisoning. In the initial stages these changes are functional (arteriolar spasm) and therefore reversible; they are represented clinically by arterial hypertension, transitory at first, but leading eventually to changes in the renal, cerebral, and coronary circulation, of which coronary spasm in young persons is especially noteworthy. In the advanced stages of lead intoxication the arteriosclerotic changes become organic and irreversible. Of the cases here reported, 38.5% showed a constant hypertension, due in some to arteriosclerosis, in others to nephrosclerosis. Cardiac complications in the form of coronary disturbance or left ventricular insufficiency or both occurred in 21.2%. One case only of obliterating endarteritis (Buerger's disease) was observed.

Ethel Browning

1158. The Bone Marrow in Occupational Lead Poisoning. (Il midollo osseo nell'intossicazione professionale da piombo)

V. PRATO and L. FIORINA. *Minerva medica* [Minerva med. (Torino)] 2, 1937-1945, Dec. 8, 1956. 2 figs., 38 refs.

At the Institute of Industrial Medicine of the University of Turin stained films of the sternal bone marrow of 24 patients with lead poisoning were examined. The subjects were divided into three groups according to their clinical symptoms and length of exposure: (1) those who were not regarded as having reached the fully developed phase of poisoning, had had only short exposure, had suffered from fluctuating abdominal pain, and had no anaemia (7 patients); (2) those who had had acute episodic attacks (11 patients, all except 2 being anaemic); and (3) those with a history of long exposure and past episodes of intoxication (6 patients, of whom only one was anaemic, though all showed increased peripheral reticulocytosis).

In the great majority the erythroblastic activity of the bone marrow was more marked than the leucoblastic, the ratio being inverted in Group 2. The curve of erythrocytic maturation was characteristic of a stimulative effect, with a higher level of polychromatic than of orthochromatic erythroblasts. Karyokinesis was increased in Groups 1 and 2, and polyploidism (increase in the number of chromosomes) in Group 2, but not to such an extent as reported by other investigators. Erythroblasts with basophilic granulation were much more numerous in cases with severe anaemia, and in the more acute phases of intoxication.

Granulocytic haematopoiesis was generally unaltered. On the whole, except in Group 1, the reaction to lead intoxication in man appears to be stimulative, in contrast to that in animals, where it has been reported as aplastic. This stimulative effect is regarded as a proliferative reaction to an abnormal destruction of erythrocytes by lead, accompanied by increased rapidity of maturation. With the cessation or decrease of haemolysis, both these phenomena return to the normal, the erythroblastic reaction first.

Ethel Browning

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