

inhalation exposures of the nose only type. The UICC [International Union Against Cancer] standard reference sample of crocidolite revealed that $50 \pm 5\%$ of the deposited asbestos was in the lower respiratory tract. After 30 days the lung content of crocidolite was reduced to 73% of the initial value. Autoradiography was used to study the distribution of asbestos within the lung immediately after exposure and after 30 days. The clearance of crocidolite from the respiratory tract was also followed by the measurement of radioactivity in feces.

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3497. GOKINA, M. S. Funktsional'noe sostoyanie miokarda i sosudisty tonus u rabochikh, podvergavshikhsya dlitel'nomu vozdeistviyu okisi ugleroda. [Functional state of the myocardium and vascular tone of workers exposed for a long time to the effect of carbon monoxide.] GIG TR PROF ZABOL 17(3): 51-52, 1973. [In Russ.]--
The contractile ability of the myocardium and vascular tone of workers exposed for a long time to CO in small concentrations was investigated. The vascular tone of 203 workers was studied by oscillography, and the propagation velocity of the pulse wave and functional state of the myocardium were determined by electro- and polycardiography with the use of functional tests: orthostatic with physical exercise and nitroglycerin. Initial signs of diffuse involvement of the myocardium and hypoxia, which intensified after physical exercise and an orthostatic position, were established on the ECGs of 12.3% of the workers examined over a 6-yr period. The contractile ability of the myocardium did not change in a considerable number of the workers (78). Machinists with a long service period and mechanics with short service had initial signs of decreased contractile ability of the myocardium, elicited by means of the functional test with nitroglycerin. There was a direct relation between the level of the average diastolic arterial pressure and propagation velocity of the pulse wave.

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3498. STULOVA, E. A. (Clin. Branch, Gorki Inst. Ind. Hyg. Occup. Dis., Dzerzhinsk, USSR.) Kharakteristika sostoyaniya termoregulyatsii pri khronicheskoi intoksikatsii vinilkhloridom. [Characteristics of the state of thermoregulation in chronic vinyl chloride

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poisoning.] GIG TR PROF ZABOL 17(3): 53-55. 1973. [In Russ.]

--The state of thermoregulation in chronic vinyl chloride poisoning, which often occurs with subfebricity but sometimes with a more appreciable increase of temperature (to 38-39 °C), was studied in 40 men and 56 women aged from 25-45 yr working in contact with vinyl chloride for 3-15 yr. The data obtained showed that different manifestations of thermoregulatory disturbances are observed in persons with chronic vinyl chloride poisoning. The acrohypothermia, a decrease of the rate of arterial flow, spasm of capillaries and spasm of medium caliber arteries that were noted in the patients unconditionally disturbed heat emission, but it was difficult to attribute these disturbances to the state of the peripheral circulation. A clinical physiological analysis of the data indicated that the disturbances were due to impairment of the functioning of the hypothalamic-brain stem structures. This is confirmed by the fact that they are combined with disturbance of heat production. Thermoregulation should be studied for early detection of chronic vinyl chloride poisoning.

--M. D. S.

3499. KURLYANDSKII, B. A., and L. L. ORDYNSKII. (Mosc.

Munic. Sanit. Epidemiol. Stn., Moscow, USSR.) K metodike otsenke opasnosti khronicheskogo ingalyatsionnogo otravleniya. [Method of determining the danger of chronic inhalation poisoning.] GIG SANIT 38(4): 68-69. Illus. 1973. [In Russ.]--The method of determining the danger of chronic inhalation poisoning is based on the hypothesis that any nonlethal inhalation poisoning, upon repeated exposure, can lead to chronic poisoning. For characterizing concentrations able to cause chronic poisoning, a zone of acute nonlethal inhalation poisoning LC_5/Lim_{ac} and a zone of possible chronic inhalation poisoning LC_5/Lim_{ch} are proposed. Both zones have a common starting point, namely, the lethal concentration LC_5 (5% in a probit expression), which simplifies subsequent frames of reference and objectivizes the determination of the index of danger of chronic inhalation poisoning I_{ch} , which is the difference between the indicated zones. The values of I_{ch} are given for Freon-141, dicyclopentadiene, propylene oxide, benzyl chloride, furan and ethyleneimine. A classification of the degree of danger of chronic inhalation poisoning as a function of the value of I_{ch} is presented and a nomogram for determining the safety

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