

Medicine and Surgery

THE EFFECTS OF SODIUM CITRATE IN LEAD POISONING AND LEAD ABSORPTION: LEAD POISONING. D. O. SHIELS, W. C. THOMAS and G. R. PALMER, M. J. Australia **2**:886-892 (Dec. 16) 1950.

The taking of sodium citrate (British Pharmacopoeia) in oral doses of 4 or 5 Gm. in an ounce or two of water three times a day is a valuable and simple method of treating lead poisoning. It causes a rapid decrease of symptoms and improvement in the general clinical condition. It causes increased elimination of lead in the kidneys without concomitant exacerbation of symptoms. The citrate is easy to take and has no unpleasant effects beyond slight occasional nausea; this effect has been noticed in few cases. This paper confirms the general conclusion of Kety and Letonoff that sodium citrate is of value in the treatment of lead poisoning.

ADAPTATION OF AUTHOR'S SUMMARY.

TWO CASES OF ARSINE POISONING. P. MOUREAU, E. PONSART, J. WARIN, and M. JOASSIN, Ann. méd. lég. criminol., police sc. **30**:174, 1950.

Of two workers in contact with galvanization ashes, which theoretically should contain Zn, ZnCl_2 , ZnO , and PbO , one died and the other was saved by treatment with BAL. The symptoms indicated AsH_3 poisoning. Analysis of the ashes showed an As content of 5 gm./Kg.

CHEM. ABST.

DIAGNOSIS, TREATMENT, AND PROPHYLAXIS OF TRINITROTOLUENE POISONING. H. BASTINIER, Industrie chim. Belge **15**:155-161, 1950.

TNT poisoning was first observed during the first world war. The effectiveness of preventive measures greatly reduced this hazard during the second world war. TNT may be absorbed to some extent through intact skin, through the lungs by inhalation of dust and vapors, and through the gastrointestinal tract when ingested along with food eaten with contaminated hands. Clinical symptoms may appear in a few weeks to six months. The clinical symptoms observed are an orange coloration of hands, face and hair, dermatoses, cyanosis, gastric discomfort, jaundice, and aplastic anemia, characterized by decrease in white cell count and platelets. The jaundice and the anemia occur more rarely but when present often precede death. Treatment of the various clinical symptoms is discussed. The importance of minimizing skin contact, removing dust and vapors, and enforcing personal hygiene among the workers is emphasized. A brief review of the methods for determining metabolites of TNT in blood and urine is given and their value is discussed.

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A NOTE ON PROTOPORPHYRIN IN THE BLOOD CELLS. V. REJSEK and V. VÁŇA, Pracovní lékařství **2**:201-209 (Nov.) 1950.

The authors studied the problem of lead poisoning with special reference to a certain aspect of the metabolism of protoporphyrin in the blood cells, i. e., the influence of lead and of extrahemoglobin iron. The results of the examinations of 235 of the 410 persons examined are included in this work. The subjects were divided into four groups. The first group comprised 60 persons who did not come into contact with lead in any form; the second group, 91 persons working under insignificant hazard, where lead poisoning practically never occurs; the third group, 52 working under conditions of considerable hazard of lead poisoning. In these places there was also a group of 32 persons in whom lead poisoning was found both by clinical examination and laboratory test. There was no case of serious poisoning. The results have been treated statistically. It was shown that lead definitely influences the metabolism of protoporphyrin. The opinions of other authors on the clear evidence of the relation to extrahemoglobin iron have not been confirmed. This is explained, however, by the complexity of the process, or rather, by its dynamics. The authors are now carrying out a study of the dynamics.

ADAPTATION OF ENGLISH SUMMARY.