

in Stage II were given suitable therapy, and that no person suspected of gastric disorder was employed. Treatment in Stage I consists of bivalent iron administration until the punctate basophilia is not greater than 5 per 50 fields; this is usually within 4 weeks. Stage II necessitates removal from exposure. For colic, atropine or papaverine are given; for anorexia a pepsin mixture; for constipation, except when colic is present, castor oil followed by oil and soap enemata. Rehabilitation of the very severe cases of lead toxicosis, who can never be re-exposed, is largely a social and financial problem, referable to governmental compensation, as also is that of workers who are able to be absorbed into non-lead work with the same company but at a lower wage.

-- Cond. from Bull. Hyg.

- 976 Clinical Study of Chloroform Anesthesia: A Preliminary Report. J. G. Reynolds, D. M. Thomas and E. H. Conner. J. Kentucky Med. Assn. 58, 340-344 (Mar. 1960).

The authors report on 62 unselected patients, between the ages of 20 months and 88 years, to whom chloroform was administered. The duration of anesthesia varied from 30 minutes to 10 1/2 hours. Anesthesia was induced either with thiopental sodium or with a combination of chloroform, nitrous oxide and oxygen. When intubation of the trachea was performed, succinylcholine chloride, in doses of 40 to 60 mg. was used to provide muscular relaxation. The concentration of chloroform was not allowed to exceed 2%, and, during maintenance, chloroform concentrations were held below 1%, usually ranging from 0.4 to 0.6%. Thymol turbidity and cephalin cholesterol flocculation tests of hepatic function were carried out in 31 of these patients. The tests showed no significant damage to the liver after chloroform anesthesia. Profound depression of the cardiovascular system with either sudden collapse or progressive fall in blood pressure during anesthesia was not observed in these patients, provided that the concentration of chloroform was under close control, that adequate ventilation was assured, and that hypoxia and hypercapnia were avoided. Controlled dosage, adequate ventilation, and careful observation of the patient at all times are important factors in insuring safe administration of chloroform.

-- J. Am. Med. Assn. Absts.

- 977 The Toxicity of Bromochloromethane (Methylene Chlorobromide) as Determined on Laboratory Animals. T. R. Torkelson, F. Oyen and V. K. Rowe. Am. Ind. Hyg. Assn. J. 21, 275-286 (Aug. 1960).

Bromochloromethane has been shown to be an effective fire extinguishing agent and it has therefore been considered as a replacement for carbon tetrachloride. Extensive studies using laboratory animals have been conducted to determine the acute and chronic vapor toxicity of this material. The material was found to cause a rather prolonged anesthesia at high concentrations and this was shown to be the cause of death in acute exposures. The material has only a slight capacity to cause liver injury and if such should occur, it is apparently reversible in nature as contrasted to the fibrotic changes resulting from much less severe exposures to carbon tetrachloride. Single exposures of various intensities were given to matched groups of rats in order to establish the exposure intensities resulting in essentially complete mortality; complete survival; and in no detectable organic injury. Repeated 7-hour daily exposures for 4 months of rats, rabbits, guinea pigs and mice to 1,000 ppm resulted in adverse effects in all species whereas exposures to 500 ppm caused only minor responses, these being limited to female rats. After 6 months of repeated 7-hour daily exposures to an average concentration of 370 ppm no effects of consequence were seen in a group of 20 female rats or in one male and one female dog. Blood bromide levels are reported for several species and for several exposure intensities. The standard for evaluating regular 7- to 8-hour daily exposures may be defined as the concentration below which practically all analytical results must fall. The value of 400 ppm is suggested as this standard for bromochloromethane, with a time-weighted average for all exposures not to exceed 200 ppm.

-- Authors' summary

- 978 How the Adhesive Manufacturer and User Can Eliminate Solvent Hazards. S. Moskowitz. Ind. Hyg. Rev. 3, 3-14 (May 1960).

This article confines itself to possible harmful effects of organic solvents on people, and what preventive measures can be taken. Hazards which might arise from the use of solvents

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