Ref 7/1/1968 0170

4,4'-DDT

Effects of Combinations of Pesticides on Reproduction in Mice

M. L. KEPLINGER, Ph.D., Wm. B. DEICHMANN, Ph.D
and
F. SALA, M.D.
Department of Pharmacology and the
Research and Teaching Center of Toxicology
University of Miami
Coral Gables, Florida 33134

Aldrin, dieldrin, chlordane and DDT were incorporated into the diet of mice for three generations. The individual experiments were designed to determine the effects in the young caused by absorption of a pesticide or a mixture of pesticides, by way of the placenta, by ingestion in mother's milk, and/or by ingestion with contaminated food. Evaluation of the accumulated data suggests the following:

Little or no effect was noted through five or six generations of mice fed toxaphene 25 ppm, chlordane 25 ppm, or DDT 25 ppm. Marked effects in regard to fertility, gestation, viability, lactation, or survival were noted in parent, or second generation and their offspring, fed: aldrin 25 ppm; dieldrin 25 ppm; aldrin 10 ppm plus chlordane 100 ppm; aldrin 25 ppm plus chlordane 25 ppm; aldrin 25 ppm plus DDT 25 ppm; and aldrin 25 ppm plus DDT 25 ppm plus chlordane 25 ppm. Significant but less marked effects were noted after feeding aldrin 3, 5, and 10 ppm; dieldrin 3 and 10 ppm; chlordane 50 and 100 ppm; DDT 100 and 250 ppm; aldrin 5 ppm plus chlordane 50 ppm; aldrin 5 ppm plus chlordane 25 ppm; dieldrin 10 ppm plus chlordane 100 ppm; aldrin 10 ppm plus DDT 100 ppm; aldrin 5 ppm plus DDT 25 ppm; dieldrin 10 ppm plus DDT 100 ppm; chlordane 100 ppm plus DDT 100 ppm; chlordane 25 ppm plus DDT 25 ppm; and chlordane 15 ppm plus DDT 15 ppm.

Microscopic examination of the organs and tissues revealed changes in the liver of all groups, and in the kidneys, lungs, and brains of most groups.

Dieldrín, aldrín, clordane y DDT se incorporaron a la dieta de los ratones en tres generaciones. Los experimentos fueron concebidos para determinar los efectos causados por la absorción de un pesticida o de la asociación de los mismos por vía transplacentaria, por vía de la leche materna o combinada con alimentos. La evaluación de la información recuperada se presentó en este trabajo.

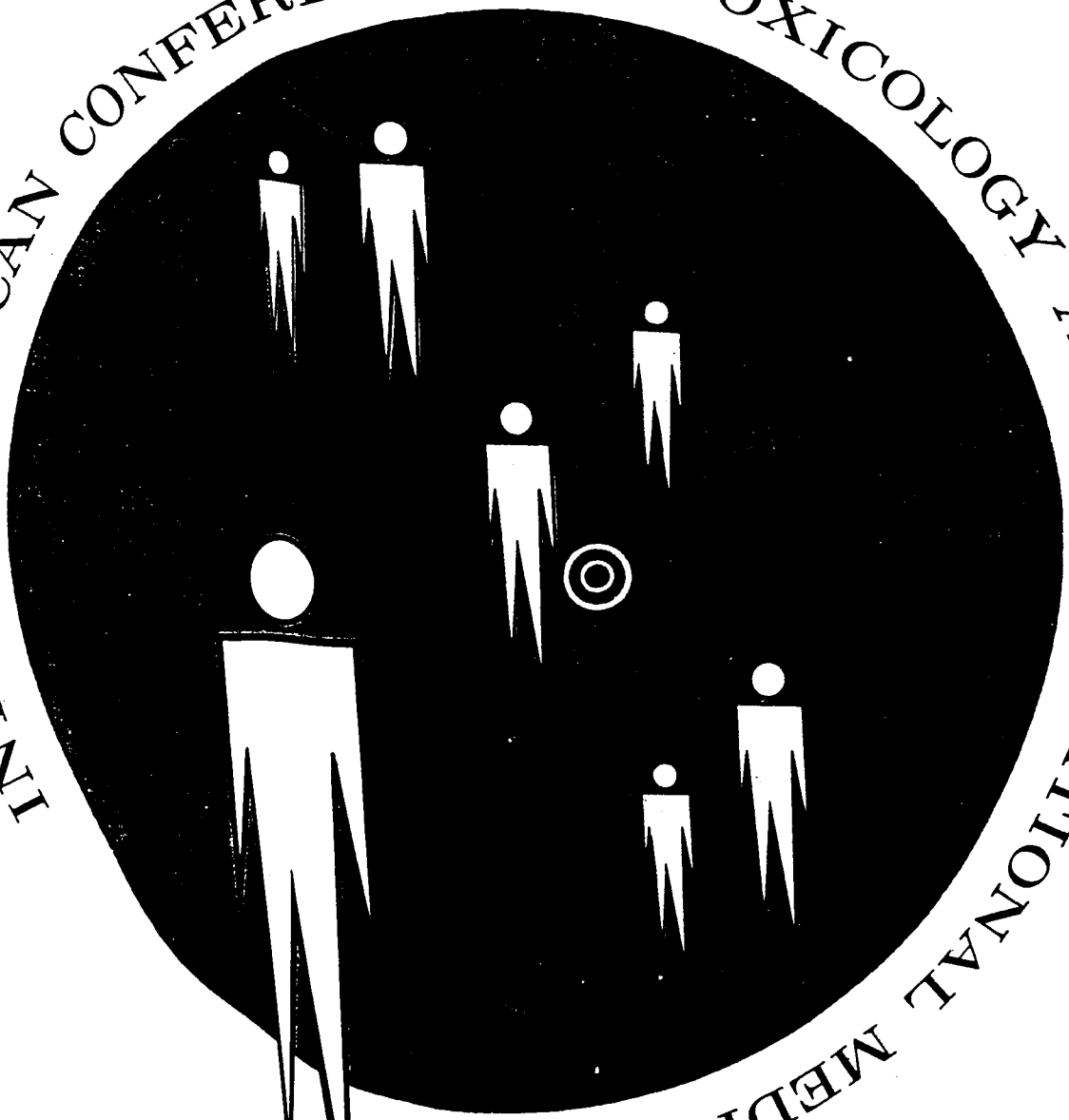
El examen microscópico de los tejidos pone de manifiesto alteraciones en el hígado, riñones, pulmón y cerebro en la mayoría de los grupos estudiados.

9124

IMS
THE INTERNATIONAL JOURNAL OF
Industrial Medicine & Surgery

592640
THE UNIVERSITY OF MICHIGAN
SEP 5 1968
MEDICAL LIBRARY

INTER-AMERICAN CONFERENCE ON TOXICOLOGY AND OCCUPATIONAL MEDICINE



FEATURE ISSUE

Abstracts of 43 papers
to be presented August 26 to 29, 1968 at
University of Miami School of Medicine
Coral Gables, Florida, U.S.A.