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DATA EVALUATION RECORD

TRICHLORFON

Antidotal Study in Rats

CITATION: Dubois KP, Raymund AB. 1961. Antidotal efficacy at 2-PAM given at various intervals after cholinergic organic phosphate. Unpublished study (Mobay number 6941) prepared by University of Chicago, Dept. of Pharmacology, submitted by Mobay Chemical Corp., Kansas City, MO. CDL: 051134-V.

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DATA EVALUATION RECORD

STUDY TYPE: Antidotal study in rats by intraperitoneal administration.

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ACCESSION NUMBER: 240239422.

MRID NUMBER: 00081337.

LABORATORY: University of Chicago, Department of Pharmacology.

TEST MATERIAL: The test compounds were identified as Dipterex (trichlorfon) and 2-PAM (methiodine salt); the source and purity of the Dipterex and 2-PAM were not stated.

PROTOCOL:

1. Adult, female rats (Sprague-Dawley) served as the test species. Five animals were used in each group.

2. The effect of the antidote 2-PAM on Dipterex-treated rats was studied. Dosages of 480 mg/kg Dipterex were given intraperitoneally to each of 3 groups, then the animals in each group received one of the following treatments:

   a. 2-PAM (50 mg/kg) given ip 5 minutes later.
   b. 2-PAM (50 mg/kg) given ip 10 minutes later.
   c. 2-PAM (50 mg/kg) given ip 15 minutes later.

   Also, 100 mg/kg 2-PAM was given orally, then:

   a. Dipterex was given intraperitoneally 10 minutes later at either 480 or 600 mg/kg.

RESULTS:

Intraperitoneal injection of Dipterex at 480 or 600 mg/kg caused 100 percent mortality despite the oral administration of 2-PAM 10 minutes before dosing. However, when both compounds were given intraperitoneally, 2-PAM administration five minutes after 480 mg/kg Dipterex gave 100 percent survival and after 10 minutes gave 75 percent survival. However, 5 of 5 animals died within 15 minutes when 2-PAM was not administered.

CONCLUSIONS:

The methiodide salt of 2-PAM did not protect against Dipterex when given orally; however, protection was demonstrated when 2-PAM was administered parenterally. The efficacy of 2-PAM decreased with increasing time of administration after dosing with Dipterex.

CORE CLASSIFICATION: Supplementary.