DATA EVALUATION RECORD

TRICHLORFON

Antidotal Study in Rats


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STUDY TYPE: Antidotal study in rats by intraperitoneal administration.


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 (methideine 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.