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Description Notes

Trip Report

The 8th International Symposium on Chlorinated Dioxins and Related Compounds.

August 21-26, 1988

Umea, Sweden

1. Approximately 600 scientists from 20 different countries met for 5 days in Umea, Sweden.
2. Two or three concurrent sessions were held during the symposium. Therefore, I chose to attend the toxicology, epidemiology, human levels, and risk assessment sessions missing presentations on analytical methods, sources, sampling techniques, environmental levels and a special seminar on incineration.
3. The highlights of the sessions that I attended are as follows:
 - a. Workers with one or more documented episode of cutaneous exposure to pentachlorophenol (no TCDD contaminant) had an increased risk of chloracne. Therefore, the presence or absence of chloracne in an individual should not be used to characterize individual exposure to dioxin. (NIOSH)
 - b. Serum 2,3,7,8-TCDD levels were not associated with any of the military characteristics of Vietnam veterans. But the dioxin levels were significantly associated with personal characteristics such as body mass index, current age, and geographic region in the U.S. (CDC)
 - c. A new case-control study of soft tissue sarcoma (STS) by Eriksson and Handell showed about a 3-fold increased risk for STS in persons exposed to phenoxy acids. (Umea University, Sweden)
 - d. Dr. Poiger, a Swiss toxicologist who ingested a single dose of tritium labeled 2,3,7,8-TCDD several years ago and reported that a half life of TCDD in man was approximately 6 years, updated the toxicokinetics of 2,3,7,8-TCDD in man. He reported that elimination of TCDD in man is a biphasic rather than a first order kinetics and that a revised half life for TCDD was approximately 11 years. (University of Zurich, Switzerland)
 - e. Medical evaluation of persons with known body levels of 2,3,7,8-TCDD (some > 60ppt in adipose tissue) did not reveal any health effects associated with exposure to dioxin. Previously reported anergy (immune function deficiency) in persons exposed to TCDD was not confirmed. (CDC and Missouri Dept. of Health)

f. Chemical workers who made products contaminated with 2,3,7,8-TCDD more than 15 years ago had a mean serum dioxin level of 208 ppt whereas workers not exposed to dioxin had a mean level of 8 ppt. The levels were related to the duration of employment. (NIOSH)

g. Concentrations up to 2252 ppt TCDD were reported in adipose tissue from 45 occupationally exposed employees of a chemical plant in Hamburg, Germany. (FRG)

h. Elevated 2,3,7,8-TCDD (up to 103ppt) levels were detected in some women hospitalized in Ho Chi Minh City in the south of Vietnam. (Vietnam)

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i. Karolinska Institute, Sweden, recommended a tolerable weekly intake of 0-35 pg TCDD/kg body weight, whereas the US EPA suggested a dose of 0.1 pg/kg per day be regarded as the dose associated with a plausible upper limit of incremental cancer risk of one-in-a million. (Sweden and EPA)

j. The aryl hydrocarbon (Ah) receptor-mediated in vitro responses were closely associated with in vivo biologic and toxic responses and therefore can be used for risk assessment of dioxins and furans. (Texas A&M University)

4. Much attention and discussion were given to dioxin in paper products and its potential health risk to consumers.

5. A separate informal meeting was held to organize an interlaboratory validation study on dioxin in human blood. WHO will sponsor this effort and approximately 20 laboratories worldwide including three labs from the U.S. will participate in the study. The study is to be completed and reported at the next dioxin symposium in Toronto, Canada in September, 1989.

6. An informal meeting was held among the CDC investigators (Drs. Patterson, Devine), Dr. Breen (EPA), Dr. Stanley (MRI) and myself to compare the results of the CDC validation study and the VA/EPA Adipose tissue study.

7. The next meeting, the 9th International Symposium on Chlorinated Dioxins and Related Compounds will be held in Toronto, Canada, on September 17-21 under the sponsorship of the Ontario Ministry of the Environment.

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