

of the slides seemed to confirm ICI's reinterpretation of Viola's findings. From this, I inferred that Zymbal gland tumors had been found. (There was no mention of angiosarcomas.) ICI had started an epidemiologic study, which, as of the date of the meeting, "looks pretty good", i.e. may clear VC. He also indicated that studies of possible carcinogenicity of orally administered VC were not yet started, but would be. He also mentioned that pregnant female rats would be exposed, whether in the oral or the inhalation study not being clear.

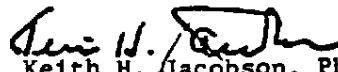
The group reviewed the history of VC toxicology. In 1962, they reported, the Threshold Limit Value (TWA) was 500 ppm, and in 1963 this was changed to a ceiling value. They referred to the work of Greenberg and Adams, and a 1968 study on humans by Kramer and Mutchler. Acroosteolysis reports began to appear around 1964.

V. K. Rowe, who I inferred to be the spokesman for the group, commented that MCA had let two contracts for work on VC, an animal study with Industrial Bio-Test and an epidemiologic study with Tabershaw-Cooper Associates. They gave us written summaries of the research outline of the epidemiologic study and the inhalation study of rodents.

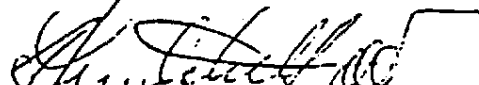
A few days prior to the meeting, I had had a visit from Herman Birnbaum, 3M Company, who had told me of his company's inability to buy VC for propellant purposes. With this in mind, I inquired of the MCA group whether there were problems in VC supply. After querying me on the background of my question, they responded that several companies have stopped selling VC for propellant purposes, on the grounds of safety; these companies included Dow, Ethyl, PPG, and perhaps others.

A recent conversation with V. K. Rowe in May 1974 elicited the comment, after he consulted his notes of the meeting, that NIOSH had been told that the new Italian study had found tumors at 250 ppm but not at lower concentrations. NIOSH staff notes and recollection are non-confirmatory.

Copies of material distributed at the July 1973 meeting are attached.


Keith H. Jacobson, Ph.D.

This agrees with my notes and memory.


Frank L. Mitchell, D.O.

Attachments

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