

Letter to the Editor

Reply to the comments by Coenraads and Tang 'Chloracne due to *o*-dichlorobenzene in a laboratory worker', Contact Dermatitis 2005: 52: 108

Dear Sir,

We thank Coenraads and Tang for their interesting comments on our contact point entitled 'Chloracne due to *o*-dichlorobenzene in a laboratory worker' (1) and offer the following reply.

Coenraads and Tang state that chloracne is known to be caused by substances that have a chemical structure, which is different from dichlorobenzene; the causative chemicals are polychlorinated dibenzodioxins (PCDDs) and polychlorinated dibenzofuranes (PCDFs). If we understand the point correctly, they suggest that, in the case we described, such compounds (PCDDs or PCDFs) could have been present in the *o*-dichlorobenzene, being the real causative agents of chloracne.

We initially considered the hypothesis that chloracne could have been caused by TCDD (or like) compounds, but, even after a careful investigation, we were unable to find any source of such compounds in the laboratory. Could TCDD have been present in the *o*-dichlorobenzene used in the laboratory? We have no reason to believe it, because the *o*-dichlorobenzene used in the laboratory was a pure compound (analytical grade, more than 98%) and the production technology used for laboratory reagents confirms the absence of significant contamination. For this reason, we did not analyse the *o*-dichlorobenzene searching for TCDD (or like) compounds. For the sake of conciseness, we did not fully describe in the case report all the work performed to assess occupational exposure of the worker in the laboratory.

A further point is the issue of *o*-dichlorobenzene as a causative agent for chloracne. The literature reports at least another study (2) in which *o*-dichlorobenzene has been described as a causative agent for chloracne, but at higher exposure levels and involving dichlorobenzene in an industrial process.

Finally, Coenraads and Tang suggest the DR-CALUX bioassay to give proof of the chloracne

causing capability of *o*-dichlorobenzene. The DR-CALUX is used for detecting dioxin and dioxin-like compounds in a wide variety of matrices. We, therefore, think that it would give the same information, which can be obtained using a chemical analysis.

A case report can only suggest hypotheses that need further study to be confirmed. This is what we implicitly suggest at the end of our report.

F. S. Violante,
Occupational Medicine Unit, University of
Bologna, Bologna, Italy
S. Milani,
School of Occupational Medicine, University of
Bologna, Bologna, Italy
G. Malenchini, A. Barbieri
Safety, Hygiene and Occupational Medicine
Service, University of Bologna, Bologna, Italy

References

1. Violante F S, Milan S, Malenchini G, Barbieri A. Chloracne due to *o*-dichlorobenzene in a laboratory worker. *Contact Dermatitis* 2005; 52: 108.
2. Rosas Vazquez E, Campos Macias P, Ochoa Tirado J G, Garcia Solana C, Casanova A, Palomino Moncada J F. Chloracne in the 1990s. *Int J Dermatol* 1996; 35: 643-645.

Address:
Dr Francesco S. Violante
Occupational Medicine Unit
University of Bologna
Policlinico S. Orsola-Malpighi
Via Palagi 9
40138 Bologna
Italy
Tel.: +39 51 429 0211
Fax: +39 51 429 0225
e-mail: francesco.violante@unibo.it