Author's reply *

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Eduardo M. De Capitani [1]
Ronan J. Vieira [3]
Elemir M. de Souza [2]
Paulo R. de Madureira [4]

We thank Pigatto *et al.* for the careful reading and the remarks made about our clinical case on contact dermatitis due to elemental mercury. [1]

Regarding the absorption of elemental mercury in the presented case, we do not think inhalation was the main route of absorption, since the amount of mercury the patient had contact with was completely limited to his pants' front pocket. The mercury slowly leaked through his trousers' fabric, getting in direct contact with his leg and foot skin. We do agree with the observation about the low rates of dermal absorption of that form of mercury reported in the literature so far. Nevertheless, we point out that these figures refer to healthy skin, without any local inflammation, which can enable higher absorption, like in our case. Pigatto *et al*. are right about the lipid solubility of elemental mercury. Nevertheless, due to its high superficial tension, the rate of elemental mercury absorption does not seem to be primarily regulated by lipid solubility but rather by rate of ionization, as seen in the gastrointestinal tract, or even in the skin, in opposition to other lipid soluble substances and elements. [2]

We think that without a confirmatory test for contact allergy the hypothesis of mercury being distributed to distant body sites from its original site of absorption, and there causing erythematous dermatitis, is so valid as the hypothesis of previous contact of the patient (not confirmed by history, but very probable in our country) with any mercury compound causing previous sensitization, and therefore, triggering distant skin reactions. Another subsequent patient we took care presented with erythematous lesion in her breast, interdigital skin of hands and feet, and internal part of her arms that appeared one day after skin contact with elemental mercury when she tried to recuperate the content of a broken thermometer spread over her bed. Her history had an evident previous sensitizing episode with concurrent skin lesion caused by mercuric antiseptic used 10 years before. The prescription of corticosteroids for this patient was based on the clinical evaluation one week after the exposure, when he presented with worse symptoms and intense areas of inflammation. ❑

REFERENCES

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ENDEREÇO PARA CORRESPONDÊNCIA / MAILING ADDRESS:
Eduardo Mello De Capitani
Caixa Postal 7042
13076 970 Campinas SP
Tel./Fax:19 3788 7595, 3788 7907 / 19 9724 9916
19 3788 7907, 3788 7595
E-mail:capitani@fcm.unicamp.br
eduardocapitani@yahoo.com

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[1] Center for Toxicological Control, Hospital de Clínicas da Universidade Estadual de Campinas - Sao Paulo, Brazil.
[2] Department of Dermatology, Faculdade de Ciências Médicas da Universidade Estadual de Campinas - Sao Paulo, Brazil.
[3] Center for Toxicological Control, Hospital de Clínicas da Universidade Estadual de Campinas - Sao Paulo, Brazil.
[4] Center for Toxicological Control, Hospital de Clínicas da Universidade Estadual de Campinas - Sao Paulo, Brazil.