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Update on the Hamilton, Ontario latex sensitization study

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To the Editor:

In our article, "Incidence of latex sensitization among latex glove users" (Sussman et al., J Allergy Clin Immunol 1998;101: 171-8), we followed 435 latex glove users prospectively over 1 year, 208 of whom were using powdered latex gloves, and 227 who were using powder-free gloves. We identified 4 individuals whose skin test responses to latex converted from negative to positive, 2 (1.0%) in the powdered glove group and 2 (0.9%) in the powder-free group. Although these proportions were similar, there were marked differences in latex protein exposure and patient reactivity. We noted that the converters in the powdered glove group were the only ones who were symptomatic and that the skin test conversions identified in the powder-free group, both of whom were asymptomatic, were difficult to explain. We discussed several explanations, including the possibility of information (observer) bias.

We want to update our findings. In February, 1998, we were able to retest the 2 converters from the powder-free group, both of whom had been using nonlatex gloves since the identification of their skin test conversions in mid-1995. Skin testing was started with dilutions beginning at 1:1,000,000 and increasing 10-fold up to the full strength extract if all test responses were negative. Both had negative skin prick test responses (all tests, 0 mm diameter) to commercially available ammoniated latex solution (Bencard Laboratory,

Mississauga, Ontario) and to a glove extract made from the powdered gloves used in the study ($>128 \mu\text{g/mL}$ antigenic protein). Skin prick test responses with the histamine control (10 mg/mL) were positive, and responses to the saline controls were negative on these patients. One of the subjects also allowed us to do a glove challenge of a medium protein powdered glove, which had a negative result.

Although the current tests were conducted over 2 years after the identification of the conversions, these results are consistent with the possibility that there had been *overreading* of the initial tests and, with our observation during the study, of many more *equivocal* skin test readings in the powder-free group. This strengthens the evidence in support of observer bias as an explanation of the results.

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Articles with References to this Article

TOP

This article is referenced by these articles:

Decreasing incidence of occupational contact urticaria caused by natural rubber latex allergy in German health care workers

Journal of Allergy and Clinical Immunology, The
August 2004 • Volume 114 • Number 2

Henning Allmers, Dr med, MPH^a, Jörg Schmengler, MD^b, Swen Malte John, Dr med^a

[ABSTRACT](#)

[FULL TEXT](#)

Primary prevention of natural rubber latex allergy in the German health care system through education and intervention

Journal of Allergy and Clinical Immunology, The
August 2002, part 1 • Volume 110 • Number 2

Henning Allmers, Dr med^{a,b}, Jörg Schmengler, MD^c, Christoph Skudlik, Dr med^a

[ABSTRACT](#)

[FULL TEXT](#)

Management of occupational allergy to natural rubber latex in a medical center: The importance of quantitative latex allergen measurement and objective follow-up

Journal of Allergy and Clinical Immunology, The
August 2002, part 2 • Volume 110 • Number 2

Loren W. Hunt, MD, Pramod Kelkar, MD, Charles E. Reed, MD, John W. Yunginger, MD

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