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## Differential Latex Allergy Prevalence in Anesthesiology Subspecialties

*To the Editor:*—Awareness of latex allergy as an occupational problem among anesthesiologists is a continuing concern. Anesthesiologists are at increased risk for latex allergy compared with most other healthcare workers because of direct exposure to natural rubber latex gloves and aeroallergen exposure through cornstarch powder that carries attached latex allergen into the operating room area. In a study we conducted previously, we found a 12.5% prevalence of latex allergy (type 1 IgE-antibody-mediated hypersensitivity) by skin and serologic testing among anesthesiologists at our institution.<sup>1</sup> From this study, however, it was uncertain whether latex exposure and sensitization rates differed for subspecialties of anesthesiologists.

To better understand the prevalence of latex allergy in anesthesia subspecialties, we extended our study of latex allergy to look at adult and pediatric anesthesiologists at the Johns Hopkins Department of Anesthesia and Critical Care Medicine and pediatric anesthesiologists attending the annual meeting of the Society of Pediatric Anesthesiologists (SPA).<sup>2</sup> There were 152 adult anesthesiologists and 121 pediatric anesthesiologists. Anesthesiologists from the SPA answered a questionnaire describing their clinical response to latex. We combined the IgE anti-latex (serology) results performed with the FDA-cleared, Pharmacia-Upjohn CAP System on specimens from pediatric anesthesiologists from the SPA and pediatric anesthesiologists from Johns Hopkins. Adult anesthesiologists were all from Johns Hopkins, and only serologic results from that group were considered in the analysis. Of the 273 anesthesiologists studied, 13 adult and 3 pediatric anesthesiologists were serologic positive. None of the pediatric anesthesiologists had symptoms for latex allergy. The prevalence of latex-specific IgE antibody positivity was significantly different between the adult and the pediatric anesthesiologists based on a chi-square analysis with 1 degree of freedom ( $P = 0.024$ ) and Fisher exact test ( $P = 0.036$ ).

These results suggest that the prevalence of latex allergy for pediatric anesthesiologists is lower than for adult anesthesiologists, which may be a result of lower glove use as suggested by Ben-David and Gaitani,<sup>3</sup> who reported significantly poorer compliance with gloving for pediatric anesthetics, especially in contrast to adult anesthetics. Decreased exposure to latex gloves on the grounds of improved dexterity and sensitivity (without gloves) during instrumentation and

intravenous access and lower perceived risk of disease transmission *via* bloodborne infections when dealing with small children have been reasoned. Adult anesthesiologists, in contrast, may perform repeated glove changes during the course of a single case, thus increasing exposure, especially to aeroallergen exposure through the cornstarch powder. Our results suggest that the prevalence of latex allergy among anesthesiologists is related to the degree of latex glove use and is a significant and continuing occupational hazard.

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