LETTERS TO THE EDITOR

RE: “LATEX SENSITIZATION IN HEALTH CARE WORKERS AND IN THE US GENERAL POPULATION”

The Garabrant report on latex sensitization in health care workers and in the US general population, sponsored by the Allegiance Health Care Corporation (1), misses an essential aspect in its discussion of the paper’s relevance. Although Wartenburg and Buckler question the utility of these data to address a current public health concern, they note only in passing the fact that the data from the Third National Health and Nutrition Examination Survey are 10–13 years old (2). This is a key issue in assessing the relative importance of latex glove sensitization among health care workers, since the problem has been of growing importance only during the past 10 years.

In 1992, the Occupational Safety and Health Administration required employers to provide employees with gloves and other protective measures against blood-borne pathogens (3), and there was a marked rapid increase in demand for natural rubber latex gloves. As a result, the National Institute for Occupational Safety and Health has stated, after Hunt et al (4), that “some manufacturers may have produced more allergenic gloves because of changes in raw materials, processing, or manufacturing procedures to meet the increased demand for latex gloves” (5, p. 5). Since then, Allegiance, which makes over 1 billion gloves annually, has introduced “technologically advanced formulations to reduce allergen levels” and “enhanced rinsing and leaching methods to reduce allergen content,” because “concerns about allergy to natural rubber latex continue to be raised” (6).

Since the brunt of the likely exposures came after the 1988–1991 study period, health care workers in the study would not be expected to demonstrate patterns of latex sensitivity very different from the general population. Therefore, these data from 1988–1991 are not relevant when discussing the differences in latex sensitization between current health care workers who were exposed since the early 1990s and the rest of the workforce.

The central theme in Dr. Budnick’s letter, that latex glove sensitization among health care workers has been of growing importance only during the past 10 years, deserves some discussion. It should be noted that widespread use of latex gloves by health care workers to reduce the risk of disease transmission occurred long before the 1992 Occupational Safety and Health requirement (3). The recognition of human immunodeficiency virus as a transmissible infectious agent in the early 1980s led to increasing use of latex gloves, as did the issuance by the Centers for Disease Control of “Universal Precautions for Prevention of Viral Transmission in the Health Care Setting” in 1987 (4). The medical literature evidenced concern about latex sensitization in health care workers as early as 1987, when Turjanmaa (5) reported the prevalence of latex glove allergy among hospital personnel, based on skin prick tests and glove use tests. She concluded that the frequency of latex allergy was significantly higher in hospital personnel than in allergy patients and that surgeons developed the allergy especially frequently. Other authors (4, 6–8) reached similar conclusions that health care workers were at increased risk of latex sensitization, based on prevalence studies conducted in 1990–1993, in which there was a notable absence of appropriate referent groups. Sussman and Beezhold (9) reported in 1994 that latex allergy had been increasingly recognized for the previous 6 years and that defined risk groups included health care workers.

These concerns about latex allergies in health care workers in the early 1990s led to measurements of latex-specific immunoglobulin E in the serum of Third National Health and Nutrition Examination Survey (phase 1) participants, which form the basis for our report (2). As our report indicates, the risks of latex sensitization among health care workers were not clearly higher than those in other occupations during that time period (1988–1991), contradicting the opinions that health care workers were a high-risk group at that time. Even the study by Hunt et al. (10), which Dr. Budnick cites, showed no relation between glove use, which increased steadily throughout the early 1990s, and the number of new cases of latex allergy, which peaked in 1990–1991 and then declined dramatically thereafter in their study. We agree with Dr. Budnick that these data do not tell us about the risks of latex sensitization since 1991. However, our report is the only published study of which we are aware that has made direct comparisons of the risks of latex sensitization in health care workers with those in comparable nonexposed groups.

THE AUTHORS REPLY

We appreciate Dr. Budnick’s response (1) to our paper (2). The central theme in Dr. Budnick’s letter, that latex glove sensitization among health care workers has been of growing importance only during the past 10 years, deserves some discussion. It should be noted that widespread use of latex gloves by health care workers to reduce the risk of disease transmission occurred long before the 1992 Occupational Safety and Health requirement (3). The recognition of human immunodeficiency virus as a transmissible infectious agent in the early 1980s led to increasing use of latex gloves, as did the issuance by the Centers for Disease Control of “Universal Precautions for Prevention of Viral Transmission in the Health Care Setting” in 1987 (4). The medical literature evidenced concern about latex sensitization in health care workers as early as 1987, when Turjanmaa (5) reported the prevalence of latex glove allergy among hospital personnel, based on skin prick tests and glove use tests. She concluded that the frequency of latex allergy was significantly higher in hospital personnel than in allergy patients and that surgeons developed the allergy especially frequently. Other authors (4, 6–8) reached similar conclusions that health care workers were at increased risk of latex sensitization, based on prevalence studies conducted in 1990–1993, in which there was a notable absence of appropriate referent groups. Sussman and Beezhold (9) reported in 1994 that latex allergy had been increasingly recognized for the previous 6 years and that defined risk groups included health care workers.

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Reference:
The risks of sensitization prior to the implementation of the Occupational Safety and Health Administration regulations in 1992 take on added relevance to the debate over latex glove-related sensitization because, as Dr. Budnick points out, newer gloves have reduced protein content and are frequently powder free. Our data derive from a historic period when low-protein gloves and powder-free gloves were far less common than in the late 1990s. Although Dr. Budnick suggests that the risks of sensitization must be higher than in the early 1990s, he offers no evidence to support this. Such data clearly are needed before a conclusion can be reached that health care workers are at increased risk of latex sensitization compared with the rest of the workforce. It should also be noted that numerous studies conducted since the early 1990s have shown no association between sensitization and use of latex gloves in health care work (4, 11–20). Conclusions about the risks of latex sensitization among current health care workers and other sectors of the workforce should be based on data, not conjecture.

REFERENCES

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