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Latex Precautions Should Be Used in All Spina bifida Patients

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Dear Sir,

Spina bifida patients have a high risk of clinical latex (rubber) allergy, with an 18–28% prevalence documented in one recent survey [1]. The cause is not fully understood but may be an IgE-mediated immediate hy-persensitivity reaction resulting from repeated exposure to latex products. While other pediatric patients with chronic medical problems may also be at risk [2], the spina bifida patient is especially predisposed, possibly because of a higher incidence of atopy or a genetic predisposition [3, 4].

In their case report of life-threatening intraoperative anaphylaxis in 3 spina bifida patients, Moneret-Vautrin et al. [3] recommend obtaining skin prick tests and radioal-lergosorbent tests (RAST) in spina bifida patients before *every* new surgical procedure, to permit detection of sensitization. Gerber et al. [2] recommend using nonlatex surgical gloves and synthetic rubber or plastic medical equipment in patients with known latex allergy.

However, identification of patients at risk is difficult with preoperative testing. RAST and skin testing for latex allergy is not currently widely available in the United States. Furthermore, the safety [2] and accuracy [5] of such testing has been questioned.

Because spina bifida patients are a known high-risk group, and repeated exposure to latex plays a role in the development of allergy, we recommend using a latex-free anesthetic technique in all spina bifida patients. In addition to recognizing their allergic predisposition and being prepared to treat allergic reactions in the operating room, we are also in a position to prevent later development of latex allergy in previously unsensitized patients. This may be accomplished by avoiding intense exposure to latex allergen during operative procedures where mucous membrane integrity is violated, tissue barriers are destroyed and blood and secretions provide an environment for absorption of latex allergen in large amounts.

While it is difficult if not impossible to eliminate exposure to all latex products in the operating room, we have attempted to standardize a nonlatex technique in all spina bifida patients from birth onward, using plastic or synthetic nonlatex products, including the following: (1) nonsterile vinyl or tactylon (Smart Practice) gloves, (2) plastic face masks, (3) neoprene anesthetic reservoir bags, (4) silastic tourniquets, (5) avoidance of older newborn/infant blood pressure cuffs that have an exposed rubber bladder, (6) injection via stopcock in the intravenous tubing rather than via the rubber injection port, and (7) use by the surgeons of sterile nonlatex gloves (tactylon or neolon, Becton-Dickinson).

A prophylaxis regimen including steroids and histamine antagonists is considered in patients with known latex allergy.

While allergic reactions to latex may occur despite adherence to these guidelines, we feel precautions are indicated and should be used in all spina bifida patients regardless of age or history and severity of latex allergy.

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