

## **GUIDELINES FOR THE MANAGEMENT OF LATEX ALLERGY**

### **Introduction**

Natural rubber latex, commonly referred to as latex, is a common component of disposable gloves, balloons, condoms, adhesive dressings, etc. Natural rubber latex is a processed plant product of the tree *Hevea brasiliensis* found in Africa and Southeast Asia. Latex is composed of various chemicals: lipids, phospholipids and proteins which are responsible for allergic sensitization predisposing to IgE mediated reactions. After the harvesting process, chemicals including anti-oxidants (phenylenediamine) and accelerators (thiurams, carbamates) are added to give the latex its desirable properties. The chemical additives are responsible for some local skin reactions (for example contact dermatitis), but are virtually never the cause of immediate generalized allergic reactions or anaphylaxis. These latter reactions are almost invariably due to immediate allergic sensitization to latex proteins themselves.

### **History taking**

Immediate reactions to latex occur very rapidly, generally within seconds or minutes and, at most, up to one hour after contact. The symptoms consist of itching, urticaria, angioedema or anaphylaxis. Delayed reactions to latex can consist of an initial acute eczematous dermatitis on the skin often with vesicle formation. This can sometimes occur quite rapidly and be mistaken for an immediate reaction. The lesions typically appear 48-96 hours after exposure and subsequently, the skin may become dry, crusted, thickened and cracked.

### **Investigations**

Immediate reactions (type I hypersensitivity) to latex can be tested for by specific IgE or by skin prick testing. Both tests, particularly the former, can give rise to false negative results. In such cases the diagnosis can be confirmed by challenge but this must be carried out in a specialised clinic with resuscitation facilities available. Any patient with a good clinical history and a negative specific IgE test to latex should be referred to the Clinical Immunology & Allergy service.

Delayed reactions (type IV hypersensitivity) to chemicals such as thiurams in the latex can be tested for by patch testing. This is performed by Dermatologists and patients require to be referred to a local Dermatology clinic.

### **Management**

Patients with a diagnosed immediate (type I) hypersensitivity to latex must be given advice to avoid contact with all products containing latex. Almost half of latex-sensitized patients display an associated fruit allergy, most commonly to avocado, banana and kiwi, but also to other species including nuts. Patients with allergies to these fruits need to be tested to establish the diagnosis and given appropriate avoidance advice. If there is any doubt then the patients should be referred to the Clinical & Immunology service for skin prick testing.

A small sub-group of patients with latex allergy are exquisitely sensitive and will react to even trace amount of latex particles in the air. These patients are at high risk of anaphylaxis. Patients with a diagnosed immediate (type I) hypersensitivity to latex must be given a management plan to deal with subsequent reactions. This should include antihistamines such as cetirizine 10-40mg o stat and adrenaline autoinjectors if the patient has had a previous serious allergic reaction to latex or falls into a high risk group, eg has underlying asthma

Patients with a diagnosed delayed (type IV) hypersensitivity to latex are unlikely to have a series allergic reaction but also need to be given avoidance advice. Treatment of reactions in these cases consists of applying topical steroid creams.

### **Reference:**

Cullinan P et al. Latex allergy. A position paper of the British Society of Allergy and Clinical Immunology Clin Exp Allergy 2003; 33:1484-1499