Emergence of a new threat: Latex allergy – A case report

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ABSTRACT

Allergy is by far one of the most common diseases affecting about 10% of the population. Allergy to latex appears to be a relatively new and increasingly frequent problem. The reason for this is not clear, but includes increased use of latex gloves over the past decade and changes in the manufacture of latex products. In this particular case an eighteen year old lady who was given restorative treatment for multiple carious teeth, reported with complication of contact dermatitis - days after the treatment. On through investigations for all the allergens the allergy was found to be from latex gloves.

Key words — Latex allergy, contact dermatitis

Introduction

Natural rubber products have been used widely for many years. Allergic reaction to rubber and especially immediate allergic reactions have only been recognized in the last decade, with the first report appearing in 1979.

There are three different types of reactions to natural rubber latex. These are irritation, delayed hypersensitivity (allergic contact dermatitis) and immediate hypersensitivity (anaphylactic symptoms)\(^1\).

Irritation is typed as a non-allergic condition. For most affected persons the irritated skin is dry, crusty and leathery with eruptions appearing as sores and blister. The response occurs between 6-48 hrs. Many people with delayed hypersensitivity have a history of atopy.

Immediate hypersensitivity is an allergic response mediated by IgE (an antibody found in circulation). On the skin this can present as hives that migrate beyond the point of contact with latex. Systemic allergic symptoms include itching of eyes, swelling of lips and tongue, breathlessness, dizziness, abdominal pain, nausea, hypo tension, shock and potentially death \(^2\).

Case report

An 18-year-old lady came to Dental OPD for restoration of maxillary and mandibular 1\(^{st}\) and 2\(^{nd}\) molars.

In the first sitting, carious # 26 and 46 were restored. After first sitting, she experienced flushing, redness and itching on face. She visited a local doctor and was given symptomatic treatment. She again reported for treatment after one month. However, she did not report about her previous episode of allergic reaction on face following dental treatment. At this visit, her # 16 and 46 were restored. This time, she came back the next
the antigen. This antigen, in turn, induces the formation of antibodies which are not usually circulating but produce antigen-antibody reaction.

Type IV hypersensitivity is mediated by different T-cell subsets of which cell mediated cellular cytotoxicity by CD8+T cells while in delayed hypersensitivity by CD4+T cells. Reaction is mediated by exposure of sensitized T-cells to specific antigenic peptides bound to self-MHC molecules. In cell mediated cytotoxicity, cytotoxic CD8+T cells assume effectors function.

Clinical features include itching, burning sensation at the site of contact, erythema and vesicle formation.

In case of secondary infection, the lesions become serous while in case of chronic contact, the skin becomes thickened and dry.

**Conclusion**

Severity of the reaction depends upon the degree of sensitivity and the amount of latex allergen getting into the body. Greatest danger of severe reactions occurs when latex comes into contact with moist areas of the body such as lip because the body can rapidly absorb more of the allergen.

Few important facts to be remembered are:

- Patients who have had surgery early in life are particularly at a risk.
- Patients in addition to latex allergy have a history of atopy.
- Patients with multiple allergies.
- Cross reactivity with certain food and spices.
- Severe allergic reactions in patients with no apparent risk factors is rare but have been documented.
- Any patient with a history of unexplained intra-operative anaphylaxis, latex allergy.
should also be considered as one of the possible causative factors

References:


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