

ANGIONEUROTIC EDEMA DUE TO SURGICAL DISPOSABLE LATEX GLOVES: A CASE REPORT

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ABSTRACT

Latex is the milky sap derived from the rubber tree *Hevia brasiliensis*. And there are increasing reports of latex sensitivity due to increase in usage. Contact urticaria (Type I hypersensitivity) from natural latex products, including surgical gloves and balloons has been well documented. Anaphylaxis can result in a seriously low blood pressure, breathing difficulty, and even death. Continued exposure puts individuals with type IV allergy at a risk of developing antibodies that trigger type I latex allergy. A 29 years old male patient after contact with surgical disposable latex gloves developed allergic reaction. in the form of itching, redness and swelling on both the hands and angioneurotic edema of face. To prevent latex allergy in health care workers and occupational skin diseases in general, it is necessary to implement preventive measures, including counseling, education, information, and awareness. Limitation of latex use needs to be considered as a long term strategy. Recognition of signs and symptoms associated with these reactions by health care professionals may help to prevent a more severe reaction.

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INTRODUCTION

Latex is the milky sap derived from the rubber tree *Hevia brasiliensis*. Latex is a stretchy material used in preparation of various items that come in direct contact with the body, Because latex is used in so many products today, there are increasing reports of latex sensitivity(1)(2). Reports of anaphylactic reactions to rubber have appeared with increasing frequency in medical literature(3)(4), Contact urticaria (Type I hypersensitivity) from natural latex products, including surgical gloves and balloons, has been well documented (5). Three types of latex reactions are observed on the skin: irritant contact dermatitis with dry itchy skin, allergic contact dermatitis (type 4 hypersensitivity), which is usually seen as a skin rash at the site where the latex product contacts the skin; and latex allergy due to a type I hypersensitivity reaction (more dangerous form)(2). This can occur in various forms such as rhino conjunctivitis, asthma, angioedema and anaphylaxis. Anaphylaxis can result in a seriously low blood pressure, breathing difficulty, and even death. Continued exposure puts individuals with type IV allergy at a risk of developing the antibodies that trigger type I latex allergy(2). Allergy to natural rubber latex is an important cause of occupational allergy in health care workers(6)(5). Powder in gloves is also a potential irritant. Research has shown that the powder in gloves causes irritant dermatitis. Through damaged skin, allergens can enter and cause allergic clinical picture(7)(8). This is also the reason why health care workers are at a higher risk to develop latex allergy than general population(6).

12%.(1)(5) Case report -A 29 years old male patient was working as a resident doctor in the ward, He used surgical disposable latex gloves while processing fluid sample from injected patients. After contact with gloves, he developed allergic reaction immediately within an hour. He developed itching, redness and swelling on both the hands which were exposed to the surgical disposable latex gloves. He took tablet pheniramine maleate 25mg stat after which allergic reaction on hand disappeared. On next day in the morning, patient noticed allergic swelling over his face (image 1) in the form of angioneurotic edema for which he took tablet pheniramine maleate 25mg stat., allergic swelling over his face disappeared till evening. At that time, allergy tests were not performed. After a short sick leave, he returned to work at the same workplace.



(Image 1 Angioneurotic edema over face)

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DISCUSSION

A 29 years old male patient after contact with surgical disposable latex gloves developed allergic reaction in the form of itching, redness and swelling on both the hands and angioneurotic edema of face. This case points out the importance to recognize latex allergy. Failure to recognize latex allergy may lead to hypersensitivity worsening and failure to prevent life threatening anaphylaxis. The presentation of this case is important to encourage the diagnosis of occupational skin diseases and to initiate further preventive measures to avoid serious consequences such as anaphylactic reaction. To prevent latex allergy in health care workers and occupational skin diseases in general, it is necessary to implement preventive measures, including counseling, education and information, and to raise awareness. During counseling, the person who is diagnosed with latex sensitivity needs to be educated on the condition and understand prevention and avoidance techniques. Another approach of prevention is education and information. Health care workers should be educated to protect themselves from latex exposure and allergy at the workplace. Some latex-sensitive workers, such as food service workers, safely can use non-latex gloves without an increased risk for infection or disease transmission, the superior barrier protection of natural rubber latex may dictate that workers such as nurses or emergency medical technicians use low-protein, powder-free latex gloves (1)(9). Limitation of latex use needs to be considered as a long term strategy for solving latex allergies among health care workers since it is known that anaphylactic reactions to rubber have appeared with increasing frequency in the medical literature. Latex allergy awareness can be established through a uniform education program involving information aids such as brochures and videos. After education, they would be able to recognize allergic symptoms. They also should be educated about proper skin care outside the workplace. At the end, health care workers should be encouraged to report every symptom of possible latex allergy contributing to materiovigilance program of India.

CONCLUSION

Natural rubber products, including surgical gloves, are known to be associated with contact dermatitis in allergic individuals. Recognition of the signs and symptoms associated with these reactions by the health care professional may help to prevent a more severe reaction from occurring. Education regarding correct glove selection, awareness of latex allergy and available alternatives is essential.

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