



PIC QUESTION OF THE WEEK: 09/26/05

Q: A patient has a history of latex allergy. Can she receive Miacalcin® Nasal Spray and Zofran® injection?

A: Natural latex is the milky sap that originates from the rubber tree, *Hevea brasiliensis* (pictured above). It is subsequently vulcanized with heat and chemicals to increase its elasticity. This newly formed product is termed natural rubber or natural rubber latex. Dry natural rubber does not contain latex, but may include impurities. Synthetic rubber does not contain impurities and is not expected to cause hypersensitivity reactions. The frequency of allergic reactions to rubber derivatives occurs in the following order: latex > natural rubber > dry natural rubber > synthetic rubber. Latex contains numerous proteins such as heveamine, hevein, and rubber elongation factor that can be absorbed through the skin or inhaled and result in allergic reactions. Latex allergies are not present at birth but can develop after repeated exposure. Health care and rubber industry workers and individuals who undergo frequent surgeries early in life, especially children with spina bifida, are at a higher risk of developing latex allergy. There are various types of latex allergy. Irritant contact dermatitis has a gradual onset and presents as redness, cracking, fissures, and scaling of the skin. A delayed hypersensitivity reaction can occur several hours after exposure with symptoms of erythema, vesicles, papules, pruritis, and crusting. The most serious reaction is an immediate hypersensitivity that may develop within minutes of exposure. Symptoms range from local or generalized urticaria to anaphylaxis. Common household items containing latex include swim goggles, waistbands, sanitary pads, rubber bands, balloons, and condoms. Surgical gloves, catheters, tourniquets, injection ports, rubber stoppers, electrode pads, and a host of other medical products contain latex. The best way to prevent allergic reactions is to completely avoid contact with latex. The rubber stoppers of the 2 milliliter and 20 milliliter vials of Zofran® injection consist of synthetic bromobutyl rubber and do not contain latex. The outlet port of the premixed Zofran® injection is also latex free. However, Miacalcin® Nasal Spray does contain latex in the stopper of the delivery system. For further information on latex allergy, please visit <http://www.medlineplus.org>. An extensive list of drugs that contain latex is available at <http://www.njha.com/corporate.services/latex.aspx>. In some cases, it may be prudent to contact the product's manufacturer.

References:

- MayoClinic.com. Latex allergy: frequent exposure increases your risk. <http://www.mayoclinic.com> (accessed 2005 Sept 22)
- Reedy S. Latex allergy. Am Fam Physician 1998;57:93-101.
- OSHA. Potential for allergy to natural rubber latex gloves and other natural rubber products. <http://www.osha.gov/> (accessed 2005 Sept 22).

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