

ERRATUM

Perioperative Latex Allergy in Children: Erratum

In the article that appeared on page 673 of the March 2011 issue, Table 2 contained an incorrect unit of measure for the “Corticosteroids” entry. The table should have appeared as follows:

Table 2. Management of an Anaphylactic Reaction to Latex in Children

Primary Management

1. Remove latex and maintain anesthesia, if necessary.
2. Notify the surgical team and complete surgery as quickly as possible.
3. Call for help.
4. Secure the airway (tracheal intubation) and ventilate with 100% oxygen.
5. Special handling for severe reactions:

Grade 3 Reaction

a. Hypotension

Using Trendelenburg position, administer balanced salt or colloid (preferably hydroxyethyl starch) solution in 20 ml · kg⁻¹ bolus doses with parenteral intravenous bolus doses 1–10 μg · kg⁻¹ epinephrine, depending on the severity of the hypotension.

b. Bronchospasm (in association with hypotension)

Parenteral intravenous boluses doses 1–10 μg · kg⁻¹ epinephrine, depending on the severity of the bronchospasm, and β₂ agonists *via* metered-dose inhaler or nebulized solution (the latter every 20 min).

Grade 4 Reaction

As required, repeated intravenous bolus doses of 10 μg · kg⁻¹ epinephrine. Consider preparing an infusion beginning at 0.1 μg · kg⁻¹ · min⁻¹ increasing up to 1 μg · kg⁻¹ · min⁻¹.

Secondary Management*

1. Consider alternate vasopressors (titrate to effect), including glucagon (20–30 μg · kg⁻¹ bolus then 5–15 μg · min⁻¹ [1 mg maximum]), phenylephrine (0.1–1 μg · kg⁻¹ · min⁻¹), noradrenaline (0.01–2 μg · kg⁻¹ · min⁻¹), or vasopressin (0.3–3 mU · kg⁻¹ · min⁻¹).
2. Corticosteroids methylprednisolone or hydrocortisone 1–2 mg · kg⁻¹ IV.
3. Antihistamines diphenhydramine (1.0–2.0 mg · kg⁻¹ [50 mg maximum]) or ranitidine (1–2 mg · kg⁻¹) IV or per os.
4. Bronchodilators metered-dose inhaler or nebulized β₂ agonists (salbutamol).

Investigation and Follow-up

1. Admit patients with grade 3 and grade 4 reactions to the intensive care unit until stable.
2. Collect blood for mast cell tryptase at 0, 2, and 24 h postreaction (peaks at 1–2 h).
3. Add signage noting “latex allergy” or “latex alert” on all relevant areas of patient care, including notes and databases.
4. Inform pharmacy and central supply of patient latex sensitivity so that latex can be eliminated from all preparations.
5. Refer child to allergist/immunologist for follow-up and testing.
6. Advise the parents of need for medical alert bracelet for child for latex allergy/anaphylaxis after diagnosis is confirmed.

Refer to table 1 for formal description of graded reactions.⁸

* Secondary management is required for grade 3 and 4 reactions in which hypotension is refractory to epinephrine and above measures. Although such reactions are unreported in children, they have occurred in adults who were β-blocked and in whom epinephrine treatment was delayed.

Reference

Sampathi V, Lerman J: Perioperative latex allergy in children. ANESTHESIOLOGY 2011; 114:673–80