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Multispecialty Collaboration Imperative Following Intraoperative Anaphylaxis

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To the editor,

We would like to thank Opstrup and Garvey for their commentary in "Intraoperative anaphylaxis: remember the hidden allergens." As they suggest, many agents employed during a procedure, from antiseptics to latex can precipitate an intraoperative reaction in a susceptible individual.[1] These substances are rarely documented in operative notes by the surgeon, or in anesthesia records. We would like to highlight the importance of face to face multispecialty collaboration after an intraoperative reaction to prompt consideration of these possible culprits.

In our particular case, the patient did not previously experience cold-induced anaphylaxis outside of the setting of surgery. This may have been related to the lack of a more systemic exposure to cold prior to her procedure. In addition many common anesthetic agents cause peripheral vasodilation and thus alter physiologic thermoregulation through a radiative loss of body heat. The physiologic effects of anesthesia likely lowered the threshold for her anaphylactic reaction to the cool fluids. It is likely that this systemic exposure, as well as large surface exposed to cold fluids precipitated her reaction.

Opstrup et. al. suggest that latex exposure could have caused anaphylaxis.[1] Uribe et al. report that in pediatric cases, latex is a primary cause of perioperative anaphylaxis, with an incidence of 1/10,159 anesthetic events.[2] In pediatric patients with underlying atopy, about 4% are sensitized to latex.[3] Latex allergy is far more common in those who have had latex exposure intraoperatively in the first year of life.[4] In hopes of mitigating reactions as well as sensitization in employees as well as patients, all operative suites at Boston Children's Hospital are latex-free. It is improbable that latex caused anaphylaxis in this case.

Chlorhexidine is a frequently employed antiseptic and is associated with a high rate of perioperative anaphylaxis.[5] In pediatric patients as well, chlorhexidine has been reported as a cause of anaphylaxis, but the frequency of this reaction is not known.[2] To mitigate

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infectious risk, our patient prepared for days pre-operatively with chlorhexidine. Post-procedurally, she continues to use chlorhexidine regularly, and has not suffered a reaction. Consistent use before and after the procedure without reaction makes it improbable that chlorhexidine caused anaphylaxis in her case.

In their operative notes, surgeons diligently describe the technique employed during the procedure, but they rarely mention medications or topical products used. Similarly, the anesthesia record thoroughly recounts antibiotics, paralytics and sedatives used, but does not reference other potentially allergenic substances used in the case. These “hidden allergens” as described by Opstrup and Garvey can indeed cause allergic reaction and even anaphylaxis.[1] We appreciate the importance of this consideration. Further, we would like to highlight the importance of multispecialty team collaboration, involving allergy, surgery, as well as anesthesia after a case of intraoperative anaphylaxis. This can be instrumental in highlighting potentially missed culprits, as well as augment patient safety as a whole.

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