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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Injured skin as risk factor for chlorhexidine anaphylaxis

To the Editor:

We have read with great interest the article on anaphylaxis elicited by invasive chlorhexidine (CHL) administration despite the apparent tolerance when applied topically on normal skin.[1] In our opinion and from a careful review of literature,[2] the integrity of the skin barrier is a key factor to avoid anaphylaxis induced by topical application of CHL.[2] A study evaluated the penetration of CHL gluconate 2% aqueous in human skin after 2 minutes, 30 minutes, and 24 hours following its application on intact cutis.[3] The authors demonstrated that CHL poorly permeated through excised full-thickness human skin, with high levels on the surface (100 micron) sections whereas the concentration of CHL within deeper layers (below 300 microns) fell to less than 0.002 μg/mg tissue.[3] Of course, absorption changes drastically when CHL is applied on damaged skin because cutaneous lesions greatly increase CHL penetration, enough to allow an allergic reaction in sensitized patients.

The first well-documented case of anaphylaxis following the topical use of CHL on disrupted skin dates back to1986.[4] Since then, many authors have reported that application of CHL on injured skin for burns,[5] minor abrasions,[6] or open minor wounds[7] increases the risk of eliciting a serious allergic reaction. Even subclinical thinness of the *stratum corneum* by repeated friction may be sufficient to facilitate CHL absorption on an apparently intact skin as occurred to a 33-year-old man after a horse ride.[8] In addition, CHL used in a disinfectant bath may be absorbed through the transcutaneous route of patients with skin diseases, leading to life-threatening consequences.[9] It is generally recognized that skin antisepsis does not sterilize the skin,[2] and CHL remains one of the most efficient topical disinfectants.[3] However, the report of Postlova et al is an important reminder that CHL is a hidden allergen in the perioperative setting that should always be included in subsequent allergy testing. CHL can induce an occult sensitization or it can cause minor symptoms, often underappreciated by patients and doctors,[4-6] before the sudden onset of a severe immediate hypersensitivity reaction. As a consequence, a preliminary screening allergic workup with CHL gluconate skin tests and specific IgE tests should be performed before any surgical session in patients at risk for anaphylaxis induced by CHL. This includes patients with a CHL-induced contact dermatitis, and patients with a history of any allergic reaction, however minor, in connection with exposure to CHL in any health care setting, including dental settings.[2]

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