Conflicts of interest

None to declared.

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Supporting Information

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Anatomical location differences in sodium lauryl sulfate-induced irritation

DOI: 10.1111/bjd.18100

Linked Article: Leskur *et al.* Br J Dermatol 2019; **181**:175–185.

Sodium lauryl sulfate [SLS; synonym: sodium dodecyl sulfate (SDS) or $C_{12}H_{25}NaO_4S$] is a surfactant that is used in many household and hygiene products. It has an irritating effect on skin and is therefore used extensively in models for testing the response of skin to irritants. Already in 1997 the European guideline on SLS exposure testing stated that 'skin penetration of SLS is expected to show a significant inter-individual and anatomical site variation'. Furthermore, the flexor side forearm skin (with cubital fossa and the wrist excluded) was recommended as a preferred study site.[1] Hereafter, several studies that involved SLS testing have nonetheless used the back as the anatomical test location, probably mostly because of its larger area.[2–4] This prompted studies that aimed to prospectively assess whether there indeed was a difference in response to irritation between anatomical locations. These studies showed conflicting results,[5–8] although the study by Lavrijsen *et al.*, which showed no difference, probably had an insufficient sample size.[6]

In this issue of the *BJD*, Leskur *et al.* present a randomized controlled trial in which they aimed to investigate the response of two anatomical locations, the volar forearm and the upper back (subscapular area), to SLS-induced irritation *in vivo* using a one-time occlusive test.[9] They set the number of participants at 25 to increase statistical power compared with earlier studies. The irritation was induced to provoke an acute reaction in healthy individuals and was compared with sham irritation using distilled water.[1] Concomitantly, the effect of an emollient cream on recovery of the irritation was tested.

The study shows that the upper back is more susceptible than the volar forearm to irritation by SLS, as measured by transepidermal water loss (TEWL), erythema and dryness. Furthermore, recovery from irritation also seems dependent on anatomical location, with the upper back recovering faster than the volar forearm (adjusted for the initial difference in irritation), confirming what was most often found in previous studies.[5,7,8] Baseline pre-irritation TEWL values were comparable between the forearm and upper back. These values were clearly not suitable predictors for the varying skin response, which implies that there must be factors other than the barrier function of the stratum corneum that contribute to the difference in response to irritation between anatomical locations. This leads the authors to speculate that response to treatment may also be anatomical site-specific, owing to structural skin differences at various body locations.

The emollient tested by Leskur *et al.* was given post-irritation to assess its effect on recovery.[9] No effect on skin irritation was seen when compared with sham-irritated skin. Possibly, the reaction that was invoked using the one-time occlusive test was too strong for treatment with an emollient only.[10] Also, the possible beneficial effect of pretreatment (application of treatment before initiating the irritation) or application using a repeated exposure model (mimicking normal use of an emollient) was not assessed. In previous years, multiple topical formulations have been tested with SLS models, but anatomical location, method of SLS exposure (one-time occlusion, repeated occlusion, open test, immersion test) and/or SLS concentration often differ. The study by Leskur *et al.* reinforces the notion that different anatomical locations respond differently to irritation using SLS. To improve comparability between studies, it is essential that researchers report anatomical test-site location and carefully consider existing guidelines for standardization in studies that involve SLS testing.

Acknowledgments

The author would like to acknowledge Dr Marie-Louise Schuttelaar and Dr Ron Tupker for their critical revision of this commentary.

Conflicts of interest

None to declare.

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Supporting Information

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Talimogene laherparepvec monotherapy, an elegant alternative to systemic immunotherapy for the treatment of early metastatic melanoma

DOI: 10.1111/bjd.18103

Linked Article: Ressler *et al.* *Br J Dermatol* 2019; **181**:186–189.

In-transit metastases in stage III melanoma are usually treated with (repeated) surgery and other locoregional treatments. Talimogene laherparepvec (T-VEC) is a modified herpes simplex virus type 1 and is given to patients with stage IIIb–IVM1a melanoma with injectable cutaneous, subcutaneous or lymph node metastases.[1] This oncolytic virus stimulates viral pathogenicity, enhances tumour-selective replication, and reduces virally mediated suppression of antigen presentation and thus induces tumour-specific T-cell responses.[2–4] The first real-world data of T-VEC monotherapy is promising, with reported response rates varying from 56.5% up to 82.6%.[5,6]

A very elegant characteristic of T-VEC monotherapy is its relatively mild side-effects. Patients often experience only self-limiting flu-like symptoms such as fever, decreased appetite, fatigue and local inconveniences such as itch, injection site pain or erythema. This makes T-VEC monotherapy a considerably less toxic alternative to systemic immunotherapies. For this reason, it can be considered also for frail and elderly patients. Currently, the potential synergetic effect of T-VEC in combination with immunotherapy is being investigated, studying pembrolizumab with T-VEC vs. pembrolizumab with placebo.[7]

This issue of the *BJD* includes an important case report describing an 58-year-old organ transplant recipient who was diagnosed with stage III melanoma with local progression of his metastases after topical treatment with imiquimod and cryotherapy.[8] Organ transplant recipients are often not considered