

Assessing the Gentleness of a Sonic Skin Care Brush for Daily Use

EM Henes, L Jackson, S Rodriguez, K Ortblad, MHA, R Akridge, PhD
Pacific Bioscience Laboratories, Inc., Bellevue, WA



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Objective

The objective of the study was to assess the gentleness of a sonic skin care brush (the CLARISONIC® Skin Care Brush) compared to over-the-counter facial products.

Methods

Eleven subjects participated in a four-arm, two-visit study. The treatment arms consisted of a sonic skin care brush with water (SB), a nylon facial pad with water (FP), a daily facial scrub (FS), and a negative control [no treatment (C)]. Using a tanning removal methodology, the skin of the lower leg was stained with a commercial self-tanning solution to artificially darken the skin's pigment. Before and after cleansing, transepidermal water loss (TEWL), skin temperature, and color intensity was measured to confirm the gentleness and safety of a new sonic skin care brush. The 3 cleansing products (SB, FS, and FP) were used under exaggerated conditions (1 minute use in 2" x 2" treatment areas). A stripped skin model was used to generate a standard curve for exfoliation. The stripped skin model utilizes 0, 5, 10, and 15 D-Squame skin sampling discs (CuDerm Corp., Dallas, TX) at one site each to uniformly remove corneocytes in the superficial stratum corneum or outermost layers of the skin. The stratum corneum provides a barrier to prevent water loss. Excessive stripping of the skin by harsh chemicals or abrasives increases water loss or TEWL measurements. Color intensity measurements provided an additional assessment of the extent of exfoliation.

Results

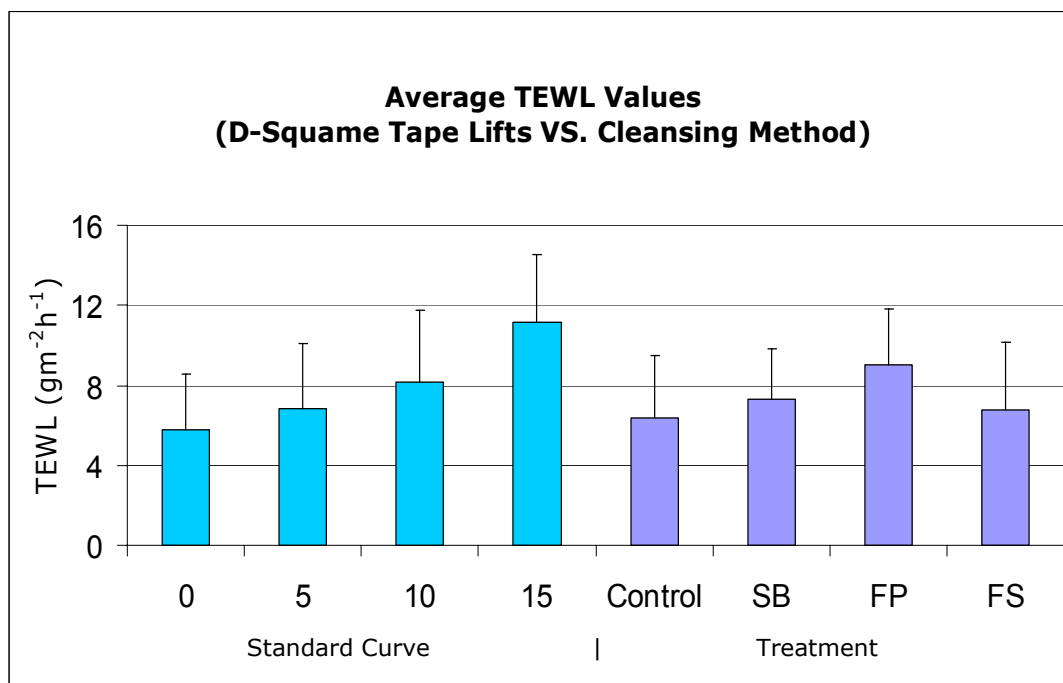
Utilizing an artificially tanned skin exfoliation model, the gentleness of the sonic skin care brush was confirmed. Color intensity measurements for skin exposed to the 3 cleansing methods fell well within the standard curve of exfoliation generated by the D-Squame skin sampling disks suggesting that the cleansing products do not excessively exfoliate the skin. TEWL measurements for all cleansing methods fell within the range of the standard curve even with exaggerated use. SB and FS were not statistically different than the untreated control confirming that the skin barrier remains intact even after extensive over use in a confined area. Skin temperature remained unchanged. Using these methodologies, a new sonic skin care brush has proven gentle and safe for daily use without disruption to the skin barrier.



(continued)



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Mean TEWL values recorded following one minute use of the test products [control (no treatment), SB, FP, and FS] or following 0, 5, 10 or 15 skin lifts with D-Squame discs.

Data presented at the 64th Annual Meeting of the American Academy of Dermatology, March 2006. J AM ACAD DERMATOL 2006; 54(3):AB50 Poster 403