

Evaluation of aloe vera gel gloves in the treatment of dry skin associated with occupational exposure.

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OBJECTIVE: An examination glove that delivers aloe vera (AV) gel to the gloved hand was studied in 30 adult females with bilateral occupational dry skin with or without irritant contact dermatitis (with or without erythema, fissures, and excoriations).

METHODS: All participants were factory assembly-line workers with repeated superficial skin trauma who attributed their dry, irritated, emollient-dependent skin to a common cause (occupational exposure). Participants were sequentially enrolled (after written informed consent, n = 29 evaluable participants) into an open, contralateral comparison study to evaluate efficacy of AV glove use 8 h/day to one hand versus no use to the opposite hand for 30 days, followed by 30 days rest, followed by 10 days of repeated use. Participant's dorsal hands were documented by standardized photos at baseline, during, and at the end of study.

RESULTS: Unblinded investigator baseline assessment rated dry skin as mild to moderate (n = 27), or moderate to severe (n = 2). Mean time to noticeable improvement for the AV glove hand was 3.5 days (range: 2-6 days) whereas marked improvement was 10.4 days (range: 7-17 days) for the AV glove hand. No improvement was detected for nonglove hands. Blinded photo assessment was rated independently by dermatology research staff. End-of-study mean global assessment of AV glove hands versus nonglove hands was 1.3 for AV glove hand (0 = no change, 1 = good [10%-89% global improvement], 2 = marked improvement [90%-100% global improvement]) versus 0 for nonglove hand (P <.0001). Mean global end-of-study assessments by the participants = 2.0 for AV glove hand versus 0 for nonglove hand.

CONCLUSION: Dry-coated AV gloves that provide for gradual delivery of AV gel to skin produced a uniformly positive outcome of improved skin integrity, decreased appearance of fine wrinkling, and decreased erythema in the management of occupational dry skin and irritant contact dermatitis.