The effect of powder and moisturizer on SLS irritated, intertriginous skin

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Intertrigo is a form of contact dermatitis of the skin folds of the body, for which a large variety of topical medications may be recommended. Application of a suitable barrier preparation is the cornerstone of prevention and treatment of intertrigo. There are almost no controlled trials to support and guide the use of barrier preparations for intertrigo. We evaluated the effect of powder and moisturizer with non-invasive measuring methods in the irritated skin reaction induced by sodium lauryl sulphate (SLS) in intertriginous skin of 21 healthy volunteers. After skin irritation for 24 hours with patch test of 1% SLS on both axilla, we applied powder and moisturizer respectively. Evaluation was done on 2 weeks by transepidermal water loss (TEWL), electrical capacitance. TEWL values of moisturizer treated side were significantly lower than that of powder treated side. Water holding
capacity values of moisturizer treated side were significantly higher than that of powder treated side. These results suggest that topical application of a moisturizer might improve the disruption of permeability barrier function of intertrigo. We suggest this experimental model for further barrier preparation efficacy testing of intertrigo.