Efficacy of microneedle patches containing salicylic acid or EGCG on acne vulgaris

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Kaposi’s sarcoma (KS) is an angio proliferative tumor caused by human herpesvirus 8 (HHV-8) which became widely known as the most frequently observed Human Immunodeficiency Virus (HHV/Acquired Immunodeficiency syndrome (AIDS)- associated malignancy. The expression of the disease is complex and incompletely understood. To date, matrix metalloproteases (MMPs) are associated with Kaposi’s sarcoma (KS) tumorigenesis and may contribute to the mechanism of KS invasive growth, and may provide new therapeutic approaches. The aim of this study was to validate a novel iPad application version of the DLQI concerning score, consistency compared to the conventional paper-based version. Patient preference and acceptability were also recorded for each version. The study employed a randomized cross-over design using a within-subjects comparison of the two questionnaire formats. Interna
tional Society for Pharmacoeconomics and Outcomes Research guidelines were followed. Subjects aged over 18 years with any confirmed skin condition were recruited from a teaching hospital dermatology outpatient clinic. 104 patients were recruited, mean age=52 years (for paper and iPad versions: 46.7±17.3 for paper and 46.7±12.7 for iPad, p=0.824) and 44 females (81.5% of paper, 79.2% of iPad, p=0.679). For the iPad version, 1 patient described the application as very easy to use (mean 9.4±1.3 for paper and 9.6±1.1 for iPad, 10=very easy). There is high concordance, and thus equivalence, between the iPad and paper versions of the DLQI with a clear patient preference for the iPad version. This first documented validation of the electronic format of DLQI is reassuring implications for researchers and patients worldwide.

Chemokine ligand 22 (CCL22) plasma levels correlate with disease severity and predict response to dithranol treatment in patients with psoriasis

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Dithranol is a potential treatment for psoriasis, leading to fast PASI reduction. Application of dithranol causes inflammation, but its mechanisms of action are still largely unclear and markers of treatment response are unknown. The aim of this study was to reveal any possible association between disease activity and/or response to dithranol treatment, and plasma levels of selected cytokines/chemokines. 15 psoriasis patients (mean PASI score at baseline, 11.6±10.6) were enrolled in this study. Biopsy and blood samples were taken before (day 0), during (day 4 at maximum inflammation), at the end of treatment (week 2-3) and after dithranol therapy (week 6-7). 65-multiplex immunoassay was used to analyze cytokine/chemokine concentrations in plasma and CD1a immunohistochemistry (IHC) was performed to quantify Langerhans cells in the epidermis. Dithranol treatment reduced PASI by a mean of 57%/range 32% to 74% at week 2-3 and by 59% (range 3% to 81%) in the follow-up at week 6-7. Though several other cytokines correlated with disease activity and/or PASI reduction, the strongest correlation was observed in CCL22. It significantly correlated with PASI score before (>0.91, p<0.0001) and after therapy (~0.90, p<0.0001) and pretreatment values of CCL22 inversely correlated with overall reduction in PASI. The results of IHC showed a trend of increase in cell count of CD1a positive cells in the epidermis during dithranol treatment, which further increased at the follow up visit (p<0.025). Our results suggest a novel role of CCL22 in plaque psoriasis in vivo during dithranol treatment. CCL22 could be a potential biomarker to predict therapy response to dithranol in psoriasis patients.