

INTISARI

Pendahuluan: Xerosis atau kulit kering adalah kondisi umum yang dapat dialami semua orang, baik akut maupun kronis. Hal ini terjadi karena perubahan lingkungan, usia, atau penyakit seperti HIV. Pada penderita xerosis, sawar kulit terganggu sehingga menyebabkan kulit kering, gatal, dan panas. Pelembap topikal dirancang untuk meningkatkan dan mempertahankan fungsi sawar kulit. Seramid berperan penting dalam mempertahankan permeabilitas air pada kulit, dan pelembap yang mengandung seramid terbukti lebih efektif dibandingkan pelembap klasik. Vitamin D juga membantu memperbaiki sawar kulit melalui regulasi keratinosit, filaggrin, dan lipid epidermal. Namun, studi perbandingan pelembap dengan Vitamin D dan seramid masih terbatas.

Tujuan: Mengetahui perbandingan efektivitas pelembap yang diperkaya provitamin D3 dengan pelembap yang diperkaya eramid terhadap kelembapan kulit yang diukur menggunakan *overall dry skin score* (ODS), dan *specified symptom sum score* (SRRC) serta menilai tingkat penguapan kulit melalui epidermis (*transepidermal water loss*) dan tingkat hidrasi kulit (*skin capacitance*) terhadap kulit kering pada pasien HIV.

Metode: Desain penelitian ini uji acak terkendali buta ganda terkontrol. Subjek penelitian merupakan penderita HIV yang dibagi menjadi kelompok yang diperkaya provitamin D3, pelembap basis dan pelembap seramid. Kelembapan diukur pada minggu ke-0 dan ke 4 menggunakan skor klinis *Specified Symptom Sum Score* (SRRC) dan *Overall Dry Skin Score* (ODSS) dan secara objektif dengan melihat nilai penguapan air melalui epidermis (*transepidermal water loss*), hidrasi kulit (*skin capacitance*), dan pH kulit. Analisis statistik dilakukan untuk mengetahui perbedaan pengaruh pemberian pelembap pada ketiga kelompok.

Hasil: Sebanyak 66 orang dibagi menjadi tiga kelompok. Empat orang subjek dieksklusi karena tidak mengikuti penelitian hingga akhir. Evaluasi pada minggu ke-4 didapatkan penurunan skor ODS dan SRRC pada ketiga kelompok namun tidak bermakna secara statistik. Terjadi rerata penurunan TEWL tiap tiga kelompok pelembap namun tidak bermakna secara statistik ($p > 0.05$). Terdapat peningkatan rerata hidrasi kulit pada tiap tiga kelompok pelembap ($p < 0.05$). Pertahanan keasaman pH sama diantara tiga kelompok pelembap ($p > 0.05$). Jika dibandingkan antar tiga kelompok pelembap, pelembap provitamin D3 lebih baik dalam menurunkan TEWL dibanding pelembap seramid, namun sebanding dalam meningkatkan hidrasi kulit serta dalam mempertahankan pH kulit.

Kesimpulan: Pemberian pelembap yang diperkaya provitamin D3, pelembap basis dan pelembap seramid sama baiknya dalam menurunkan skor ODS, SRRC. Pelembap provitamin D3 lebih baik dalam menurunkan TEWL dibanding pelembap seramid, namun sebanding dalam meningkatkan hidrasi kulit dan mempertahankan pH kulit.

Kata kunci : pelembap provitamin D3, seramid, kelembapan kulit, kulit kering, HIV.

ABSTRACT

Introduction: Xerosis or dry skin is a common condition that can be experienced by everyone, both acutely and chronically. This occurs due to environmental changes, age, or diseases such as HIV. In people with xerosis, the skin barrier is disrupted, causing dry, itchy, and hot skin. Topical moisturizers are designed to improve and maintain skin barrier function. Ceramides play an important role in maintaining water permeability in the skin, and moisturizers containing ceramides have been shown to be more effective than classic moisturizers. Vitamin D also helps repair the skin barrier through the regulation of keratinocytes, filaggrin, and epidermal lipids. However, comparative studies of moisturizers with Vitamin D and ceramides are still limited.

Objective: To determine the comparative effectiveness of moisturizers enriched with provitamin D3 and moisturizers enriched with ceramides on skin moisture measured using the overall dry skin score (ODS), and specified symptom sum score (SRRC) and to assess the level of skin evaporation through the epidermis (transepidermal water loss) and the level of skin hydration (skin capacitance) on dry skin in HIV patients.

Methods: The design of this study was a double-blind randomized controlled trial. The subjects were HIV patients who were divided into groups enriched with provitamin D3, base moisturizer and ceramide moisturizer. Moisture was measured at weeks 0 and 4 using the clinical scores Specified Symptom Sum Score (SRRC) and Overall Dry Skin Score (ODSS) and objectively by looking at the value of water evaporation through the epidermis (transepidermal water loss), skin hydration (skin capacitance), and skin pH. Statistical analysis was performed to determine the differences in the effects of moisturizing in the three groups.

Results: A total of 66 people were divided into three groups. Four subjects were excluded because they did not follow the study until the end. Evaluation in the 4th week found a decrease in ODS and SRRC scores in the three groups but was not statistically significant. There was an average decrease in TEWL in each of the three moisturizer groups but was not statistically significant ($p > 0.05$). There was an increase in the average skin hydration in each of the three moisturizer groups ($p < 0.05$). The pH acidity defense was the same among the three moisturizer groups ($p > 0.05$). When compared between the three moisturizer groups, provitamin D3 moisturizer was better at reducing TEWL than ceramide moisturizer, but was comparable in increasing skin hydration and maintaining skin pH.

Conclusion: Giving moisturizer enriched with provitamin D3, base moisturizer and ceramide moisturizer were equally good at reducing ODS and SRRC scores. Provitamin D3 moisturizer was better at reducing TEWL than ceramide moisturizer, but was comparable in increasing skin hydration and maintaining skin pH.

Keywords: provitamin D3 moisturizer, ceramide, skin moisture, dry skin, HIV.