

## INTISARI

**Latar belakang:** Erupsi Papular Pruritik (EPP) merupakan salah satu manifestasi kulit pada penderita HIV/AIDS yang sering ditemukan. Erupsi papular pruritik dikarenakan disregulasi imun terutama dominasi sitokin sel limfosit *Thelper* (Th2) berupa peningkatan interleukin-4 yang menyebabkan penurunan sintesis *ceramide* (CER) sehingga mengakibatkan gangguan fungsi sawar kulit. Pelembab adalah produk topikal yang dirancang untuk meningkatkan dan mempertahankan fungsi sawar kulit.

**Tujuan:** Membuktikan krim pelembab CER efektif menurunkan *transepidermal water loss* (TEWL), meningkatkan hidrasi kulit, menurunkan jumlah lesi dan rasa gatal dibandingkan krim pelembab non-CER serta memiliki efek samping yang sama dengan krim pelembab non-CER pada penderita EPP.

**Metode Penelitian:** Penelitian dengan desain eksperimental buta ganda. Subyek penelitian adalah penderita HIV/AIDS dengan EPP yang berobat di RSUP Dr. Sardjito. Pengolesan krim pelembab CER dan non-CER masing-masing pada lengan bawah berbeda sisi selama 3 minggu. Analisis hasil dengan uji T tidak berpasangan atau uji *Mann-Whitney* dengan kemaknaan  $p < 0,05$ .

**Hasil Penelitian:** Krim pelembab CER menurunkan nilai TEWL sebesar  $3,56 \pm 2,38$  g/m<sup>2</sup>/jam; menaikkan nilai hidrasi kulit sebesar  $16,39 \pm 7,19$  a.u.; menurunkan lesi kulit sebesar  $0,79 \pm 4,95$ ; menurunkan rasa gatal sebesar  $1,54 \pm 0,78$  dan tanpa menimbulkan efek samping. Krim pelembab non-CER menurunkan nilai TEWL sebesar  $1,57 \pm 2,00$  g/m<sup>2</sup>/jam; menaikkan nilai hidrasi kulit sebesar  $12,03 \pm 6,88$  a.u.; menurunkan lesi kulit sebesar  $1,42 \pm 3,00$ ; menurunkan rasa gatal sebesar  $1,17 \pm 0,70$  dan juga tanpa menimbulkan efek samping.

**Kesimpulan:** Krim pelembab CER efektif dan lebih efektif dibandingkan krim pelembab non-CER dalam menurunkan TEWL. Krim pelembab CER efektif dan lebih efektif dibandingkan krim pelembab non-CER dalam meningkatkan hidrasi kulit. Krim pelembab CER dan non-CER memiliki efektifitas yang sama dalam menurunkan jumlah lesi. Krim pelembab CER dan non-CER memiliki efektifitas yang sama dalam mengurangi rasa gatal. Krim pelembab CER dan non-CER tidak menimbulkan efek samping.

**Kata kunci:** *Erupsi papular pruritik, pelembab ceramide, TEWL, hidrasi kulit, jumlah lesi, rasa gatal, efek samping*

## ABSTRACT

**Background:** Pruritic Papular Eruption (EPP) is one of the most common skin manifestations in HIV/AIDS patients. Pruritic papular eruptions are due to immune dysregulation, especially the dominance of Thelper lymphocyte cytokine (Th2) in the form of an increase in interleukin-4 which causes a decrease in ceramide synthesis (CER) resulting in impaired skin barrier function. Moisturizers are topical products designed to improve and maintain skin barrier function.

**Objective:** To prove that CER moisturizing cream is effective in reducing transepidermal water loss (TEWL), increasing skin hydration, reducing the number of lesions and itching compared to non-CER moisturizing creams and having the same side effects as non-CER moisturizing creams in patients with EPP.

**Research Methods:** Double blind experimental design. The research subjects are HIV/AIDS sufferers with EPP who seek treatment at RSUP Dr. Sardjito. The application of CER and non-CER moisturizing cream on the forearm on different sides for 3 weeks, respectively. Analysis of the results with the unpaired T test or the Mann-Whitney test with a significance of  $p < 0.05$ .

**Results:** CER moisturizing cream decreased the TEWL value by  $3.56 \pm 2.38$  g/m<sup>2</sup>/hour; increase the value of skin hydration by  $16.39 \pm 7.19$  a.u.; decreased skin lesions by  $0.79 \pm 4.95$ ; reduce itching by  $1.54 \pm 0.78$  and without causing side effects. Non-CER moisturizing cream decreased the TEWL value by  $1.57 \pm 2.00$  g/m<sup>2</sup>/hour; increase the value of skin hydration by  $12.03 \pm 6.88$  a.u.; decreased skin lesions by  $1.42 \pm 3.00$ ; reduce itching by  $1.17 \pm 0.70$  and also without causing side effects.

**Conclusion:** CER moisturizing cream is effective and more effective than non-CER moisturizing cream in reducing TEWL. CER moisturizing cream is effective and more effective than non-CER moisturizing cream in increasing skin hydration. CER and non-CER moisturizing creams have the same effectiveness in reducing the number of lesions. CER and non-CER moisturizing creams have the same effectiveness in reducing itching. CER and non-CER moisturizing creams do not cause side effects.

**Keywords:** *Pruritic papular eruption, ceramide moisturizer, TEWL, skin hydration, number of lesions, itching, side effects*