

INTISARI

Latar Belakang: Dermatitis atopik (DA) merupakan penyakit inflamasi kulit kronis pada anak yang ditandai dengan disfungsi sawar kulit, inflamasi, dan pruritus yang membentuk siklus gatal-garuk. Kondisi ini tidak hanya meningkatkan derajat keparahan penyakit, tetapi juga berdampak signifikan terhadap kualitas hidup pasien. Pelembap merupakan terapi dasar DA, terutama formulasi yang mengandung *ceramide* sebagai komponen lipid fisiologis sawar kulit. Penambahan bahan bioaktif seperti ekstrak biji *Moringa oleifera* (*M. oleifera*), yang kaya flavonoid dengan efek antiinflamasi dan antioksidan, berpotensi meningkatkan efektivitas terapi.

Tujuan: Menilai efikasi pelembap yang diperkaya *ceramide* dan ekstrak biji *M. oleifera* dibandingkan pelembap kontrol dalam menurunkan intensitas pruritus, derajat keparahan penyakit, dan memperbaiki kualitas hidup pada pasien anak dengan dermatitis atopik derajat ringan-sedang.

Metode: Penelitian ini merupakan analisis data sekunder dari uji klinis acak tersamar ganda. Sebanyak 31 subjek anak dengan dermatitis atopik ringan-sedang dibagi menjadi kelompok perlakuan dan kontrol. Kelompok perlakuan mendapatkan pelembap yang diperkaya *ceramide* dan ekstrak biji *M. oleifera*, sedangkan kelompok kontrol mendapatkan pelembap basis. Evaluasi dilakukan pada minggu ke-0, minggu ke-2, dan minggu ke-4. Luaran penelitian meliputi intensitas pruritus menggunakan PP-NRS, derajat keparahan menggunakan SCORAD, dan kualitas hidup menggunakan CDLQI/IDQOL. Analisis data dilakukan menggunakan uji parametrik atau nonparametrik sesuai distribusi data.

Hasil: Karakteristik baseline kedua kelompok sebanding. Penurunan PP-NRS baseline-minggu ke-4 tidak berbeda bermakna antara kelompok perlakuan dan kontrol [$3,5$ (0-5) vs 3 (0-5); $p=0,517$]. Penurunan SCORAD lebih besar pada kelompok perlakuan ($16,84 \pm 7,36$ vs $12,36 \pm 3,88$; $p=0,044$), dan SCORAD minggu ke-4 lebih rendah pada kelompok perlakuan ($9,98 \pm 6,58$ vs $16,76 \pm 8,91$; $p=0,022$). Penurunan CDLQI cenderung lebih besar pada kelompok perlakuan, tetapi tidak bermakna [8 (0-17) vs 5 (1-8); $p=0,069$], meskipun skor minggu ke-4 lebih rendah [2 (0-7) vs $3,5$ (1-7); $p=0,024$].

Kesimpulan: Pelembap yang diperkaya *ceramide* dan ekstrak biji *M. oleifera* lebih baik dibandingkan pelembap kontrol dalam memperbaiki derajat keparahan dermatitis atopik berdasarkan SCORAD pada anak dengan dermatitis atopik ringan-sedang. Kedua kelompok mengalami penurunan skor PP-NRS dan CDLQI, namun tidak berbeda antarkelompok.

Kata Kunci: *dermatitis atopik, ceramide, Moringa oleifera, PP-NRS, SCORAD, CDLQI, IDQOL, pelembap, fungsi sawar kulit*

ABSTRACT

Background: Atopic dermatitis (AD) is a chronic inflammatory skin disease in children characterized by skin barrier dysfunction, inflammation, and pruritus, forming an itch-scratch cycle. This condition not only increases disease severity but also significantly impairs patients' quality of life. Moisturizers are the cornerstone of AD management, particularly formulations containing ceramides as essential lipid components of the skin barrier. The addition of bioactive compounds such as *Moringa oleifera* seed extract, which is rich in flavonoids with anti-inflammatory and antioxidant properties, may enhance therapeutic effectiveness.

Purpose: To evaluate the effectiveness of a moisturizer enriched with ceramide and *M. oleifera* seed extract compared to a control moisturizer in reducing pruritus intensity, disease severity, and improving quality of life in pediatric patients with mild-to-moderate atopic dermatitis.

Methods: This study was a secondary data analysis of a double-blind randomized clinical trial. A total of 31 pediatric subjects with mild-to-moderate atopic dermatitis were divided into treatment and control groups. The treatment group received a moisturizer enriched with ceramide and *M. oleifera* seed extract, while the control group received a base moisturizer. Evaluations were performed at week 0, week 2, and week 4. Study outcomes included pruritus intensity assessed using the PP-NRS, disease severity assessed using SCORAD, and quality of life assessed using the CDLQI/IDQOL. Data were analyzed using parametric or non-parametric tests according to data distribution.

Results: Baseline characteristics were comparable between the two groups. The reduction in PP-NRS score from baseline to week 4 did not differ significantly between the treatment and control groups [3.5 (0–5) vs 3 (0–5); $p = 0.517$]. The reduction in SCORAD was significantly greater in the treatment group than in the control group (16.84 ± 7.36 vs 12.36 ± 3.88 ; $p = 0.044$), and the week-4 SCORAD score was significantly lower in the treatment group (9.98 ± 6.58 vs 16.76 ± 8.91 ; $p = 0.022$). The reduction in CDLQI score tended to be greater in the treatment group but did not reach statistical significance [8 (0–17) vs 5 (1–8); $p = 0.069$], although the week-4 CDLQI score was significantly lower in the treatment group [2 (0–7) vs 3.5 (1–7); $p = 0.024$].

Conclusion: Moisturizer enriched with ceramide and *Moringa oleifera* seed extract was more effective than the control moisturizer in reducing disease severity, as assessed by SCORAD, in children with mild-to-moderate atopic dermatitis. Both groups showed improvements in PP-NRS and CDLQI scores, however, the magnitude of improvement did not differ significantly between groups.

Keywords: atopic dermatitis, ceramide, *Moringa oleifera*, PP-NRS, SCORAD, CDLQI, IDQOL, moisturizer, skin barrier function