EFEKTIVITAS EKSTRAK RUMPUT MUTIARA (*Hedyotis corymbosa* (L.) Lam.) DENGAN METODE *ULTRASONIC ASSISTED EXTRACTION* SEBAGAI ANTIFUNGI TERHADAP PERTUMBUHAN JAMUR *Malassezia furfur* SECARA *IN VITRO*

Aufa Saniyyah Abdaah Merdeka Sari

Abstrak

Permasalahan infeksi jamur kulit di Indonesia semakin meningkat, salah satunya diakibatkan jamur *Malassezia furfur* yang menyebabkan penyakit tinea versikolor. Pengobatan menggunakan antijamur sintesis sering kali menimbulkan efek samping serta berpotensi menyebabkan resistensi. Ekstrak rumput mutiara (*Hedyotis corymbosa*) dapat menjadi salah satu alternatif pengobatan antifungi karena kandungan metabolit sekunder seperti saponin, alkaloid, flavonoid, tanin, dan triterpenoid. Tujuan dari penelitian ini untuk mengetahui efektivitas ekstrak rumput mutiara (*H. corymbosa*) dengan metode *Ultrasonic Assisted Extraction (UAE)* terhadap pertumbuhan jamur *M. furfur* secara *in vitro*. Penelitian ini merupakan penelitian eksperimen *post-test only control group design* dengan metode difusi sumuran. Diameter zona hambat pada media *Sabouraud Dextrose Agar* pada konsentrasi ekstrak 10%, 15%, 20%, 25%, dan 30% diukur setelah 24 jam dan 48 jam untuk menentukan efektivitas. Data dianalisis menggunakan uji *Kruskal-Wallis* dan dilanjutkan uji *Post Hoc Mann-Whitney.* Hasil uji *Kruskal-Wallis* menunjukkan perbedaan zona hambat yang signifikan ($p < 0,05$). Ekstrak rumput mutiara memiliki efektivitas dalam menghambat pertumbuhan *Malassezia furfur*.

Kata kunci: antifungi*,* difusi sumuran, *Hedyotis corymbosa*, *Malassezia furfur,* UAE

THE EFFECTIVENESS OF PEARLY GRASS EXTRACT (Hedyotis corymbosa (L.) Lam.) USING THE ULTRASONIC ASSISTED EXTRACTION METHOD AS AN ANTIFUNGAL AGAINST THE GROWTH OF Malassezia furfur IN VITRO

Aufa Saniyyah Abdaah Merdeka Sari

Abstract

The incidence of superficial fungal skin infections in Indonesia continues to increase, one of which is caused by Malassezia furfur, the etiological agent of tinea versicolor. Treatment using synthetic antifungal agents often results in adverse effects and may contribute to antifungal resistance. Pearl grass (Hedyotis corymbosa) extract may serve as an alternative antifungal treatment due to its secondary metabolites, including saponins, alkaloids, flavonoids, tannins, and triterpenoids. This study aimed to determine the effectiveness of H. corymbosa extract obtained using the Ultrasonic Assisted Extraction (UAE) method against the in vitro growth of M. furfur. This study employed a post-test only control group experimental design using the well diffusion method. Inhibition zone diameters on Sabouraud Dextrose Agar were measured at extract concentrations of 10%, 15%, 20%, 25%, and 30% after 24 and 48 hours of incubation to assess antifungal effectiveness. Data were analyzed using the Kruskal–Wallis test followed by the Mann–Whitney post hoc test. The Kruskal–Wallis analysis revealed significant differences in inhibition zone diameters among the treatment groups ($p < 0.05$). The results indicate that H. corymbosa extract is effective in inhibiting the growth of Malassezia furfur.

Keywords: *Antifungal, well diffusion, Hedyotis corymbosa, Malassezia furfur, UAE*