

ABSTRAK

Infeksi jamur dermatofita masih menjadi masalah kesehatan yang sering dijumpai di berbagai wilayah dunia, salah satunya akibat *Microsporum canis*. Pengobatan dermatofitosis umumnya menggunakan antijamur konvensional, namun penggunaannya dapat menimbulkan efek samping, kekambuhan, dan resistensi obat, sehingga diperlukan alternatif pengobatan berbasis bahan alam. Daun sirih hijau (*Piper betle* L.) adalah tanaman obat yang diketahui mengandung senyawa aktif seperti saponin, flavonoid, tanin, dan terpenoid yang berpotensi sebagai antijamur. Penelitian ini bertujuan untuk mengetahui efektivitas serta pengaruh konsentrasi ekstrak etanol daun sirih hijau terhadap daya hambat pertumbuhan *Microsporum canis*. Penelitian menggunakan desain *true experimental* dengan *posttest only control group design*. Uji efektivitas antijamur dilakukan menggunakan metode difusi cakram dengan konsentrasi 25%, 50%, dan 75%. Itrakonazol digunakan sebagai kontrol positif, sedangkan dimetil sulfoksida (DMSO) berperan sebagai kontrol negatif. Hasil penelitian menunjukkan rata-rata diameter zona hambat pada konsentrasi 25% sebesar 18,88 mm (kuat), sedangkan konsentrasi 50% dan 75% masing-masing menghasilkan rata-rata diameter zona hambat sebesar 28,54 mm dan 36,90 mm (sangat kuat). Zona hambat konsentrasi 75% lebih besar dibandingkan kontrol positif. Data tidak berdistribusi normal dan tidak homogen, sehingga dianalisis menggunakan uji Kruskal–Wallis yang menunjukkan perbedaan signifikan antar kelompok ($p < 0,05$). Hasil uji post hoc Mann–Whitney menunjukkan terdapat perbedaan bermakna antar setiap konsentrasi ekstrak ($p < 0,05$) dan peningkatan daya hambat seiring kenaikan konsentrasi. Namun, tidak terdapat perbedaan signifikan antara kontrol positif dan ekstrak konsentrasi 50% ($p > 0,05$). Berdasarkan hasil tersebut, dapat disimpulkan bahwa ekstrak daun sirih hijau (*Piper betle* L.) berpengaruh terhadap daya hambat pertumbuhan *Microsporum canis*.

Kata kunci: Antijamur; difusi cakram; Piper betle L.; Microsporum canis

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Dermatophyte fungal infections remain a common health problem in various parts of the world, one of which is caused by *Microsporum canis*. Dermatomycosis is generally treated with conventional antifungal agents, but their use can cause side effects, recurrence, and drug resistance, necessitating alternative treatments based on natural ingredients. Green betel leaf (*Piper betle* L.) is a medicinal plant known to contain active compounds such as saponins, flavonoids, tannins, and terpenoids that have antifungal potential. This study aims to determine the effectiveness and influence of green betel leaf ethanol extract concentration on the growth inhibition of *Microsporum canis*. The study used a true experimental design with a posttest only control group design. The antifungal efficacy test was conducted using the disc diffusion method with concentrations of 25%, 50%, and 75%. Itraconazole was used as a positive control, while dimethyl sulfoxide (DMSO) served as a negative control. The results showed that the average inhibition zone diameter at a concentration of 25% was 18.88 mm (strong), while concentrations of 50% and 75% produced average inhibition zone diameters of 28.54 mm and 36.90 mm (very strong), respectively. The inhibition zone at a concentration of 75% was larger than that of the positive control. The data were not normally distributed and were not homogeneous, so they were analysed using the Kruskal–Wallis test, which showed significant differences between groups ($p < 0.05$). The Mann–Whitney post hoc test showed that there were significant differences between each extract concentration ($p < 0.05$) and an increase in inhibition power with increasing concentration. However, there was no significant difference between the positive control and the 50% concentration extract ($p > 0.05$). Based on these results, it can be concluded that green betel leaf extract (*Piper betle* L.) affects the growth inhibition of *Microsporum canis*.

Key words: Antifungal; disc diffusion; Piper betle L.; Microsporum canis

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