

ABSTRACT

THE EFFECT OF ANTIBACTERIAL POWER OF ETHANOL EXTRACT MOUTHWASH FROM ANT-PLANT (*Myrmecodia pendens* Merr. & Perry) TOWARD *Candida albicans* In Vitro

Alqodar

School of Dentistry, Faculty of Medicine and Health Sciences
Muhammadiyah University of Yogyakarta

Background: *Candida albicans* is a kind of fungi that have been reported attack to human body. It has some species and one of them lead to oral infection also known as oral candidiasis. The anthill plant has a hump-like in shape. It has been used as the traditional medicine. It has some active compounds such as flavonoid, saponin and tannin. Those kinds of active compounds caused the anthill ekstrak has the antimicrobe effect

Research Objective: To determine the anti microbial effect of etanol extract mouthwash of anthill plant (*myrmecodia pendens merr & perry.*) to *C.albicans*

Research Methods: The research design is experimental laboratories. The cultured fungi was incubated with etanol extract of anthill plant for 18-24 hours in 37C. It was devided into five concentrations 10%, 25%, 50%, 75%, 100%. Chlorhexidine gluconate 0,2% were used as the positive control and the basic formula of mouthwash with 0% in concentration were used as the negative control to the bacterial and media control. The antibacterial effect were tested by using water dilution to determined the Minimal Inhibit Concentration (MIC) and the solid dilution were used to determine the Minimal bacterisidal concentration (MBC) The data were analysed by using quantative descriptive

Results: This study showed that the ethanol extract of the ant-plant mouthwash (*myrmecodia pendens merr.perry*) had minimal inhibitory concentration (MIC) of 10% and a minimum kill concentration (MBC) at a concentration of 25%.

Conclusion: The ethanol extract of the ant-plant mouthwash (*myrmecodia pendens merr.perry*) has the effect of antimicrobial power against the *Candida albicans*.

Keywords: plant anthill (*myrmecodia pendens merr.perry*), *candida albicans*, mouthwash, minimal inhibitory concentration (MIC), minimum bacterisidal concentration (MBC)

INTISARI

PENGARUH DAYA ANTIMIKROBA OBATKUMUR EKSTRAK ETANOL TANAMAN SARANG SEMUT (*Myrmecodia pendens* *Merr. & Perry*) TERHADAP JAMUR *Candida albicans* *in vitro* Alqodar

Program Studi Pendidikan Dokter Gigi Fakultas Kedokteran dan Ilmu Kesehatan
Universitas Muhammadiyah Yogyakarta

Latar Belakang: *C. albicans* merupakan salah satu jamur yang banyak dilaporkan menyerang manusia, beberapa spesies juga bisa menyebabkan oral kandidiasis. Tanaman sarang semut memiliki bentuk seperti bonggol yang sering dimanfaatkan sebagai obattanaman sarang semut terdapat kandungan senyawa aktif golongan flavonoid, saponin dan tanin kaya akan *polifenol*, *alkaloid*, dan *flavonoid* yang memiliki efek antimikroba.

Tujuan Penelitian: untuk mengetahui daya antibakteri obat kumur ekstrak etanol tanaman sarang semut (*myrmecodia pendens merr.perry*) terhadap jamur *candida albicans*.

Metode Penelitian: Desain penelitian ini adalah eksperimental murni laboratorium. Menggunakan biakan jamur *candida albicans*. yang diinkubasi dengan obat kumur ekstrak etanol tanaman sarang semut (*myrmecodia pendens merr.perry*) pada konsentrasi 10% , 25% , 50% , 75% , 100% selama 18-24 jam dalam suhu 37°C, kontrol positif menggunakan *Chlorhexidine gluconate* 0.2% dan kontrol negatif adalah formula dasar obat kumur (konsentrasi 0%) kontrol bakteri dan kontrol media. Uji daya antibakteri menggunakan metode dilusi cair untuk menentukan kadar hambat minimal (KHM) dan dilusi padat untuk menentukan kadar bunuh minimal (KBM). Analisis data menggunakan deskriptif kuantitatif.

Hasil Penelitian: penelitian ini menunjukkan bahwa obat kumur ekstrak etanol tanaman sarang semut (*myrmecodia pendens merr.perry*) mempunyai kadar hambat minimal (KHM) 10% dan kadar bunuh minimal (KBM) pada konsentrasi 25%.

Kesimpulan: obat kumur ekstrak etanol tanaman sarang semut (*myrmecodia pendens merr.perry*) mempunyai pengaruh daya antibakteri terhadap jamur *candida albicans*.

Kata kunci: tanaman sarang semut (*myrmecodia pendens merr.perry*), *candida albicans*, obat kumur, kadar hambat minimal (KHM), kadar bunuh minimal (KBM).

